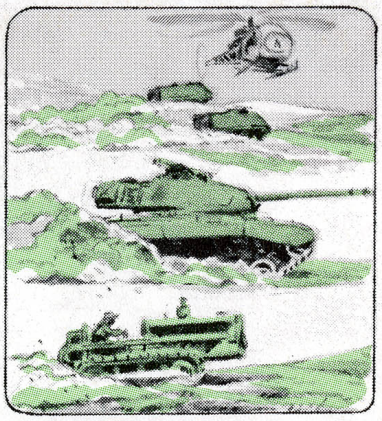
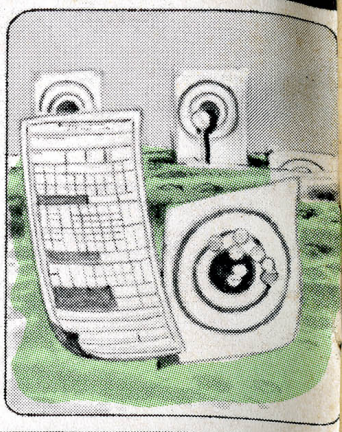
Issue 73
PS
1958 Series
THE
PREVENTIV
MAINTENANCE
MONTH
WILL EISNER

Without maintenance everything goes . . .

DOWN the DRAIN





Over at Fort Lone Pine there was a soldier who was calculated to be just about the best doggone soldier in the whole Army.

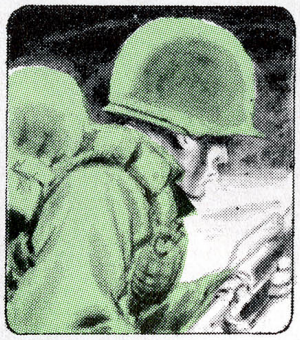
***He could move** . . . like nobody's business. Maneuver was his middle name.*

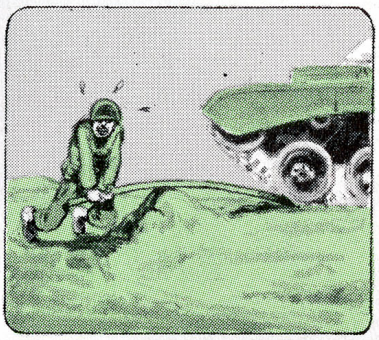
***He could shoot** . . . his guns and missiles could zero-in like a flash.*

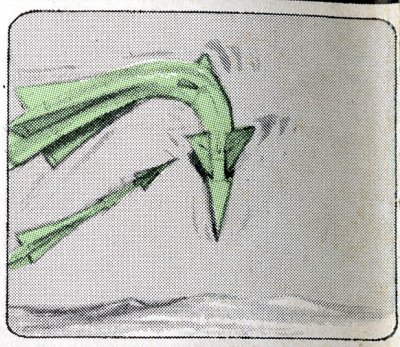
This soldier had been trained and had all kinds of practice in how to do these things.

BUT . . . *time passed, the equipment wore and he didn't do his maintenance . . .*

Came A Shooting War . . .







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In a nutshell, he couldn't fight . . . **WHY?**

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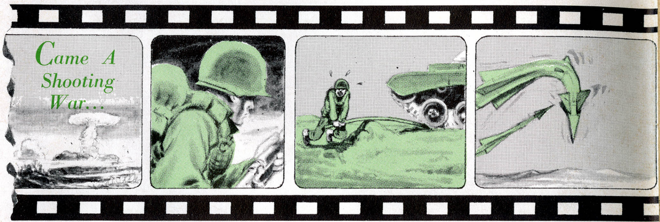

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MAINTENANCE?

PS THE PREVENTIVE MAINTENANCE MONTHLY

Issue No. 73 — 1958 Series

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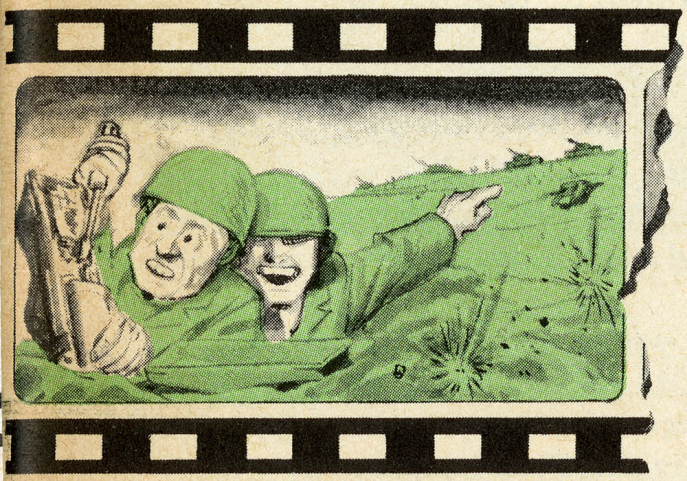

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PM | **Supply** | **Inspections** | **Training**

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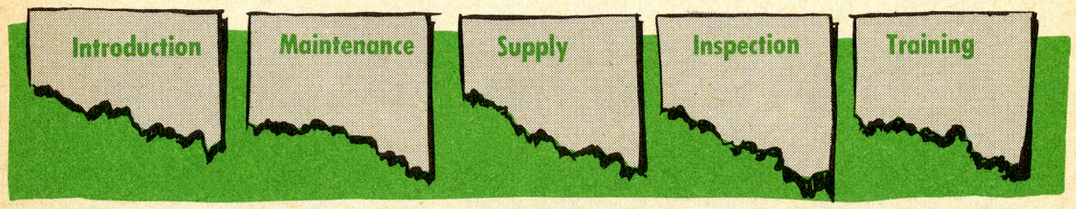

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As far as new methods go—you've got plenty of 'em. All of 'em give you a better system of operating and servicing your vehicles by clearing up a lot of gaps in the old TM.

Best of all, the new TM 9-2810 is put together so you won't have to spend as much time as before on keeping records. The Army's doing this because it realizes that knowing how to keep records isn't anywhere as important as the condition of the equipment. You can't forget about records and forms—but you can think of them as being secondary to the combat readiness of your equipment. That's the idea behind this modern-type TM. The day of the horse and wagon's gone . . . today, you move fast or you won't get the chance to move at all.

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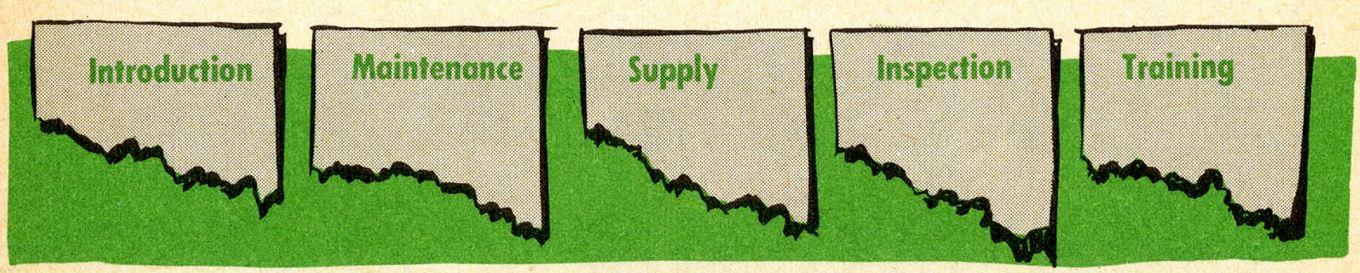

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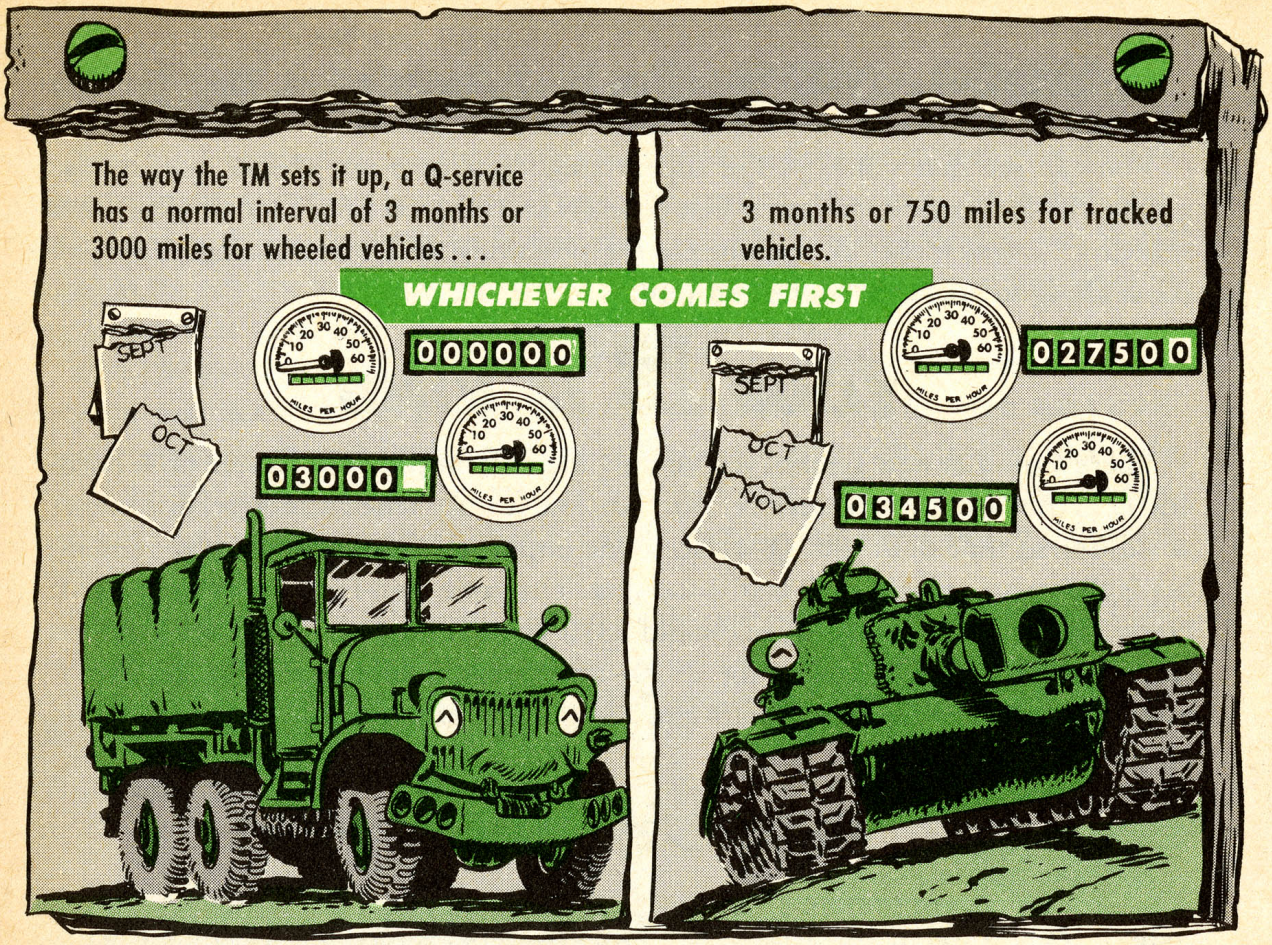
The TM's job is to give every outfit in this man's Army the same system, near as possible—so a man transferred from one outfit to another won't need three months, or longer, to learn a new maintenance SOP.

WHAT'S MAINTENANCE MEAN?

Take the Introduction chapter. That gives you a definition of some of the most common maintenance terms, so there'll be less misunderstanding of what words like repair, replace, recondition and maintenance **really** mean. You also get a brief outline of organizational, field and depot maintenance duties—the differences—and the Army's overall policy on maintenance.

One of the most useful additions in the new TM is a listing of duties for everyone concerned with organizational maintenance—maintenance officer, maintenance sergeant, recovery personnel, mechanics for automotive, turret, artillery and armor, drivers and crews, dispatchers, clerks and parts specialists.

Goodbye B-C-D services. The old weekly and biweekly B-service is gone for good. The monthly C-service, along with the semi-annual and quarterly D-service are replaced by the new Q-service. The whole idea is to get away from over-maintaining your vehicles by cutting down on the number of times you have to do a **scheduled** PM service. This saves a lot of unnecessary wear and tear on the vehicle and gives you more time for other maintenance duties . . . like trouble shooting and doing needed repairs.



Now you're about to ask yourself who's going to pull a Q-service with vehicle TM's that only list C and D-services. Well . . . you use the D-service list as a general guide on inspecting and servicing during every Q-service.

But take a good look at the new quarterly inspection forms . . . they tell you which ITEMS to check. Notice how a lot of the old checks—like compression testing and valve timing—are DS jobs now. This cuts down the time it takes you to do the Q.

In fact, doing-the-Q is a battalion, group or regimental chore. As a company or battery mechanic all you want to worry about now are the things that make up the backbone of a mechanic's maintenance duties. There's plenty of repair work and trouble shooting to keep every mechanic's day pretty full . . . without getting roped, hand and foot, by first echelon PM.

Of course, you still want to watch what goes on during the daily BEFORE and AFTER checks in your own motor pool. That means making yourself available whenever your first echelon people start throwing open the hood or grille doors on their vehicles. Even though the daily PM check and service is a driver or crew job, you're part of it. Why? 'Cause you're the **supervisor** . . . that's why.

Nobody expects a driver or crew member to have as much mechanical know-how as you have about their vehicles . . . their primary job is operation. But, with you there to lend an instructing hand, they sure can learn a little.

Doesn't take long to find out where the lube points are located, where to throw oil into a crankcase or how to listen for a defective muffler.

You can see that while you're supervising these operator checks, you're also giving the driver or crew some first echelon **training** on how to look after their vehicles . . . which they're responsible for operating **and** maintaining. You just come along to take care of the bad jobs.

YOUR LO IS KING

There's another new symbol you're now to mark on your PM Roster (DA Form 460) . . . that's **L** for lube service. But, you use it **only** when a lube service comes at a different time than your **Q**-service. One important thing you want to remember is that your vehicle's LO is still top dog. The same goes for your vehicle's TM. Notice how the PM check list in the old 2810 got left out . . . on purpose. You just can't figure that one TM—like the 2810—can cover the lubing and PM for everything that rolls, under every condition. TM 9-2810 just sets policy—and lets it go at that.

THE NEW STORAGE DEAL

FORMS, FORMS AND MORE FORMS

One of the sections in the chapter on maintenance does something everybody's been waiting to see for a long time. The forms needed for organizational maintenance are explained **and** shown in one place . . . TM 9-2810. Besides, they're all filled in for you the same way you'd do it. What's more . . . you're told how they're supposed to be used, filed and disposed of—all in one shot.

You also get details on the procedures that go with making out first and second echelon maintenance forms. That's so there'll be less need for each local commander to come up with interpretations and ground rules—like they've had to do when the TM didn't tell the full story. It's all part of the big picture to have everyone running in the same direction at the same speed . . . **standardization** the Army calls it.

Best of all, the new 2810 gives you authority for using six new forms and one more that's optional. These long-needed forms are:

SUPPLY AND MAINTENANCE ARE TWINS

You always have to keep in mind that good maintenance needs good supply practices. You can't have one without the other. That's why the new TM throws in a whole chapter on supply.

You get an explanation of both the old and new supply manuals that list the parts for your vehicles. In other words, TM 9-2810 first explains the Ord 7, 8 and 9 manuals—then goes into the five different types in the newer SM 9-series.

The TM also tells you how to keep up-to-date on your supply manuals by using DA Pam 310-29, the Ordnance Corps' supply manual index.

WHAT'S WITH PARTS?

There's a whole supply section on how to get your repair parts, including who does what job in supply. Naturally, it wouldn't be a complete description without telling you all about DA Form 1546 (Request for Issue or Turn-In) and the Visible File Index that goes along with it . . . not to mention some tips on how to store items in your parts room, both in garrison or out in the field.

Just about the most useful section—because it's all new info—is on how to find your way around the new 5-part TM's. These are the new-style TM's coming out with the new vehicles . . . like the M274 Mechanical Mule or the M56 90mm SP gun.

INSPECTION KNOW-HOW

As if this wasn't enough info in one TM, you get told how to conduct each type of inspection that's in the books, who runs 'em, how to rate the vehicles and how to handle deficiencies. There're also a few sample inspection forms thrown in for good measure.

You'll find it handy to latch onto that system of supervisor's inspections—which your own maintenance or motor officer and sergeants are in charge of running for your unit's CO. It's a sort of personal check you make on yourself for your own satisfaction. You use it for double checking on how well your vehicle operators and crew people are doing their first echelon maintenance. You don't have to

waste time scheduling it or making out formal records and reports . . . since the results don't go to any higher command. You're just keeping your own motor pool on the ball.

That's why there's no form for this type of inspection. Your CO depends on you and all the other maintenance people in your unit to know, by experience, when something's wrong with your maintenance. After all, you're the people working with the maintenance end of the business every day—right?

THE TRAINING YOU GET

For the first time, TM 9-2810 gives you a definite training program guide for using in your own unit. This chapter is a jim-dandy of an outline covering the uses and benefits for you that comes from setting up a unit training program.

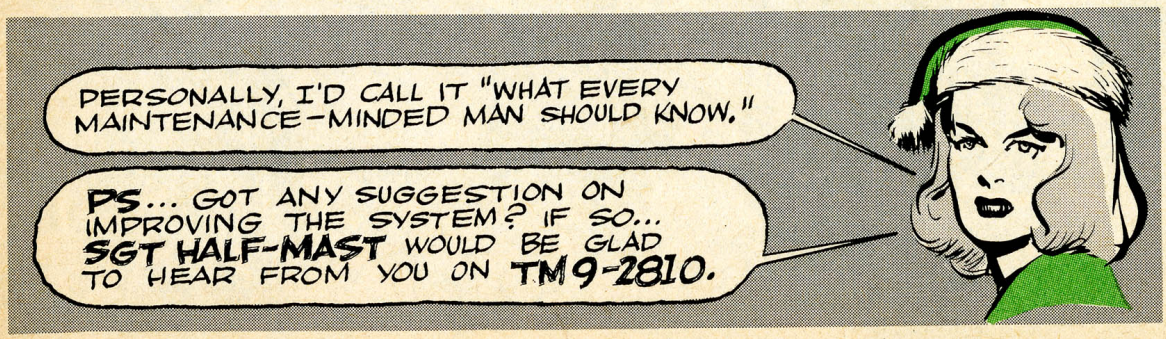
It also tells you who's responsible for doing the training and how to make better use of the Army's service schools and on-the-job training.

One section even goes into the right way to select and train drivers, specialists and supervisors. What next, Sir?

Bringing up the rear are a lot of helpful appendixes. They include samples of a typical maintenance SOP, training directive, command training program for motor vehicles—and POI's (Programs of Instruction) for supervisors and wheeled vehicle mechanics. This is so you'll have a place to start from in getting your own directives and POI's rolling off the printing machine.

Finally, you get references to other publications and forms you should know—when you're dealing with tactical vehicles, besides a run down on the Army's system of indexes for publications, and an alphabetical index on the tail end. It's right handy for finding things fast by looking up the page or paragraph number.

Just like the old TM 9-2810 used to be, this new one is the TM to follow when you run into conflicts between older dated maintenence publications. It should be the grimiest manual—next to the vehicle TM—in your knuckle-busting-dirt-under-the-fingernail motor pool.



GET ALONG,

Got a balky talkie?

Does your AN/PRC-6 just hiss at you—or maybe not even hiss?

Could be 'tis time to pull some PM. That'll make sure your handie-talkie will talk and listen when it's told to, and also keep the inspector smilin' when he lays loving paws on it next time around.

Keeping your PRC-6 on the line is pretty easy, come to think of it, mostly because it was built to roll with the punches that equipment gets when the going gets rough.

But some basic preventive maintenance is needed just the same . . . on things like

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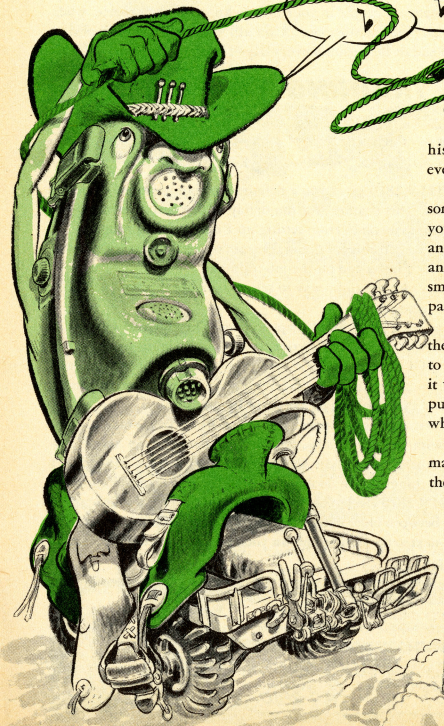

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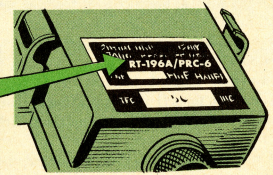
But some basic preventive maintenance is needed just the same . . . on things like cases, antennas, batteries, slings and fasteners. Batteries run down; cases crack; antennas get grimy and kink; slings shred; fasteners lose their grip.

Y'might want to bring yourself up to frequency on your PRC-6 with a quick look-see at some of these items.

For one thing, strange to say, there are three varieties of PRC-6's—even though they come to you as if there was just one type.

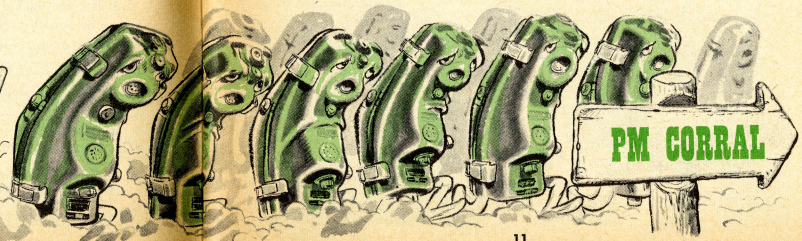
It's a simple case of different manufacturers making the talkies, and each one making his a shade different.

To tell which is which, take a look at the nomenclature plate. Among the words there, you'll see that the third line says RT-196/PRC-6. And that's the spot to watch. 'Cause sometimes it'll say just plain RT-196/PRC-6. But sometimes it'll say RT-196A/PRC-6. And sometimes it'll say RT-196B/PRC-6.



Which means there's a so-called "plain" model (without any letter after the RT-196), and then there's an A and B model.

So what! So they all work, don't they? True enough. But the little differences are the things that cause the big trouble. F'rinstance:



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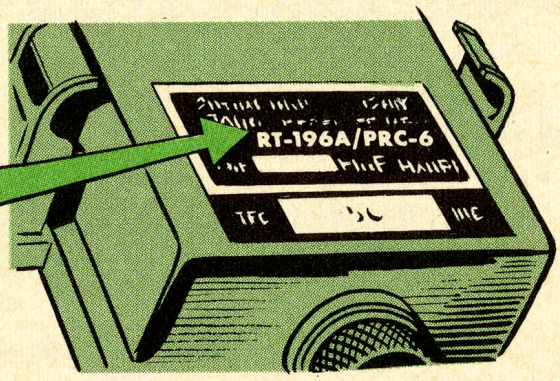
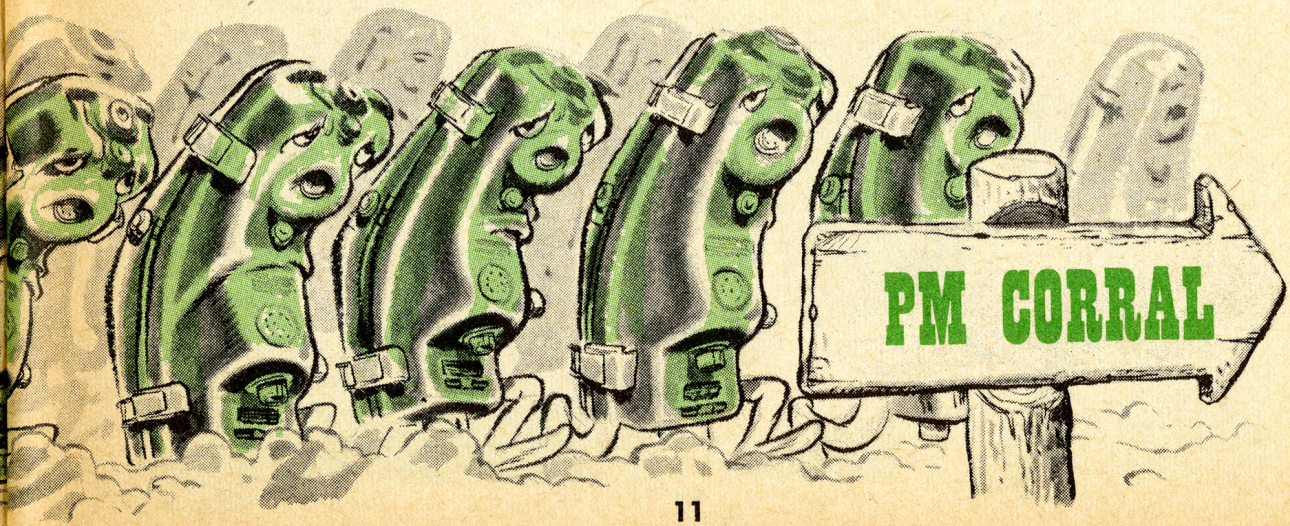
It's a simple case of different manufacturers making the talkies, and each one making his a shade different.

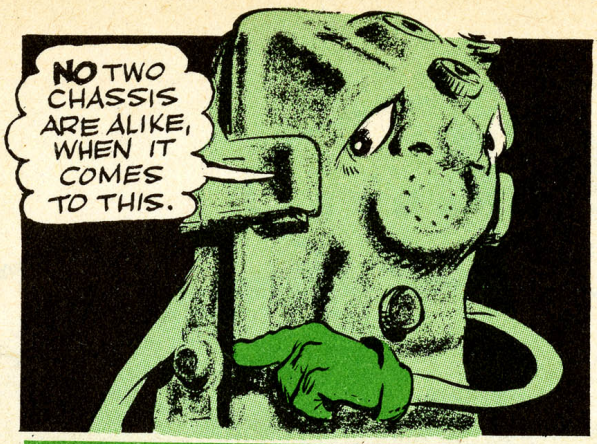
To tell which is which, take a look at the nomenclature plate. Among the words there, you'll see that the third line says RT-196 /PRC-6. And that's the spot to watch. 'Cause sometimes it'll say just plain RT-196/PRC-6. But sometimes it'll say RT-196A/PRC-6. And sometimes it'll say RT-196B/PRC-6.



Which means there's a so-called "plain" model (without any letter after the RT-196), and then there's an A and B model.

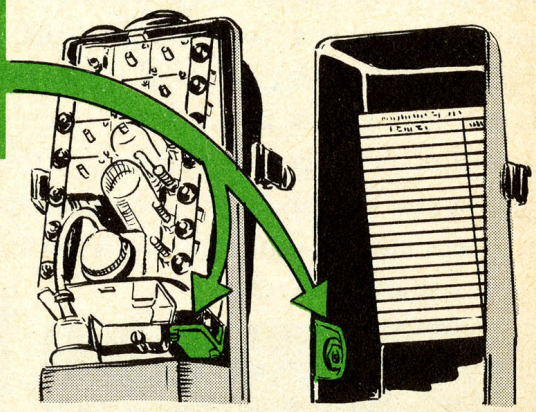
So what! So they all work, don't they? True enough. But the little differences are the things that cause the big trouble. F'rinstance:





The cover and chassis of every PRC-6 are interchangeable with any cover and chassis of other PRC-6's. The cover of one will fit on the chassis of another. BUT, no two covers and no two chassis are quite alike when it comes to several items—especially the PUSH-TO-TALK switch assembly. Which happens to be the busiest part of this equipment.

It's all in the plunger. The plunger on the "plain" model, for example, is just the right length so that when you push the TALK button the plunger hits the microswitch inside with just the right pressure to make a firm contact.

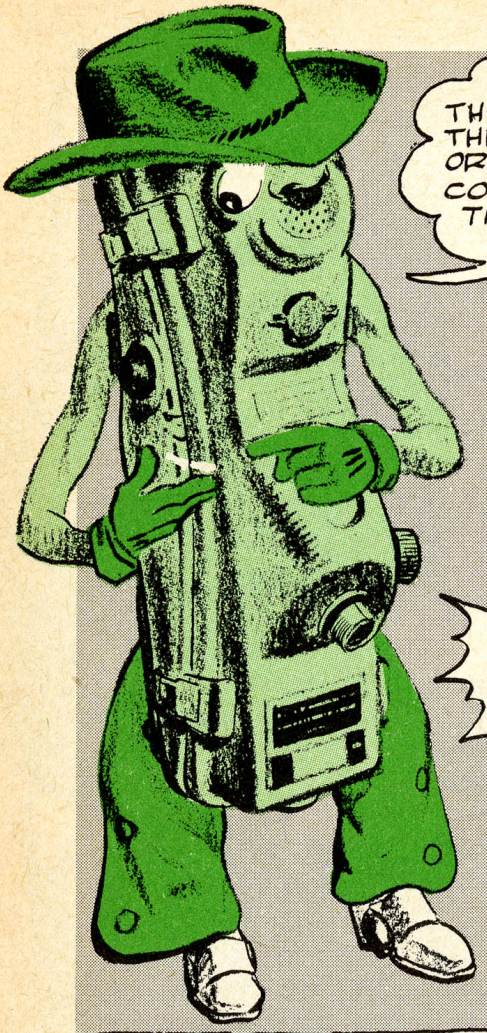


Same with the "A" model. Only the plunger is a little shorter than the plain one—but still hits the microswitch on an "A" model chassis with just the right pressure. Likewise with the "B" model. And so it goes.

And that's when the sweat starts to show. If a cover with a longer plunger (like on the plain model) is put on a chassis that takes a shorter length, then the long plunger will ALWAYS press on the switch, making a permanent contact. Bad, Bad.

Or, if you've got too short a plunger, then all the pushing in the world won't make contact.

There's one other little fly in the beer, here, too. Since all MWO's are recorded right there in the space provided on the inside of the cover, any mixup of covers and chassis would leave everybody up in the air over what MWO's had been applied to which chassis.



SO **TAG THEM. TAG THEM.** JUST ABOUT THE MOST FOOL-PROOF WAY IS TO USE THE **SERIAL NUMBER** AS IDENTIFICATION. OR, YOU MIGHT MAKE A **MARK** ON BOTH COVER AND CHASSIS...SO THAT THOSE **MARKS LINE UP** ONLY WHEN THE **RIGHT** COVER AND CHASSIS ARE BROUGHT TOGETHER.

ALWAYS REMEMBER, OF COURSE, THAT THOSE COVERS COME OFF PRETTY OFTEN—WHEN A BATTERY OR CRYSTAL NEEDS CHANGING AND WHEN THE DAILY AND WEEKLY CHECKS ARE RUN.

WOT'S THAT ABOUT CHECKS!!.

WHAT? WHERE?

GRAB A **DA FORM 11-238 (1 MAY 57)** AND MAKE WITH A PENCIL. THIS FORM IS A REAL COMBINATION JOB, COVERING **FIRST, SECOND, AND THIRD ECHELON**... NOT ONLY ON RADIO GEAR BUT ON HALF-A-DOZEN OTHER SIGNAL ITEMS TO BOOT.

MAINTENANCE CHECK LIST FOR SIGNAL EQUIPMENT
SOUND EQUIPMENT, RADIO, DIRECTION FINDING RADAR, CARRIER, RADIOSONDE AND TELEVISION
(AR 750-625)

EQUIPMENT NOMENCLATURE: RT 196 B/PRC-6

EQUIPMENT SERIAL NUMBER: 4176

INSTRUCTIONS

This form may be used for a period of one month by using the correct dates and weeks of the month. It is to be used as a Preventive Maintenance check list for Signal equipment in actual use, or for a check on equipment prior to issue.

1. For detailed Preventive Maintenance instructions see:
   a. The Technical Manual *(in TM 11 series)* for the equipment. *(See DA Pamphlet Number 310-4)*
   b. The Supply Bulletin *(SB 11-100 series)* for the equipment. *(See DA Pamphlet Number 310-4)*
   c. The Department of the Army Lubrication Order. *(See DA Pamphlet Number 310-4)*
2. The following action will be taken by either the Communications Officer/ Chief for 1st echelon, or the Inspector for higher echelon:
   a. Enter Equipment Nomenclature and Serial Number.
   b. Strike out items that do not apply to the equipment.
3. Operator/Inspector will enter in the columns entitled CONDITION, on the proper line, a notation regarding the condition, using symbols specified under LEGEND.
4. After operator completes each daily inspection he will initial over the appropriate dates under "Daily Condition for Month", then return form to his supervisor.

TYPE OF INSPECTION

OPERATOR	2/3 ECHELON	DATE	SIGNATURE
✓		10/7/58	PFC Martin Lieman
✓		10/14/58	SP2 Fred Right
		10/21/58	SP2 Fred Right
		10/28/58	SGT James Doe

DA FORM 1 MAY 57 **11-238**

REPLACES DA FORMS 11-238, 1 NOV 55; 11-239, 11-244, 11-245, 11-246, 11-249, 11-250, AND 11-251; WHICH ARE OBSOLETE.

LEGEND for marking conditions:
Satisfactory, ✓.
Adjustment, Repair or Replacement required, X.
Defect corrected, (X).

DAILY

NO.	ITEM
1.	COMPLETENESS AND GENERAL CONDITION OF EQUIPMENT. *(Transmitter, receiver, carrying cases, wire, cables, microphones, tubes, spare parts, technical manuals).*
2.	CLEAN DIRT AND MOISTURE FROM ANTENNA, MICROPHONES, HEADSETS, KEYS, JACKS, PLUGS, COMPONENT PANELS.
3.	INSPECT CONTROLS FOR NORMAL OPERATION. TAP CONTROLS LIGHTLY FOR EVIDENCE OF CUT-OUT FROM LOOSE CONTACTS.
4.	CHECK FOR NORMAL OPERATION OF EQUIPMENT. BE ALERT FOR UNUSUAL OPERATION OR CONDITION.

WEEKLY	CONDITION EACH WEEK 1ST	2D	3D	4TH	5TH	2D 3D ECH
5. CLEAN AND TIGHTEN EXTERIORS OF CASES, RACKS, MOUNTS. TRANSMISSION LINES.	✓	✓	✓	✓		

DAILY CONDITION FOR MONTH OF

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	2D 3D ECHELON
6. INSPECT CASES TOWERS AND E) SURFACES FOR	INT FR 17	INT FR 18	INT FR 19	FR 20	FR 21	INT (X) 22	INT 23	FR 24	FR 25	DD 26	DD 27	FR 28			FR DD 29	FR	
7. INSPECT CORDS SHOCK MOUNTS BREAKS, FRAYI	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ (X)	✓ ✓	✓ ✓	✓ X	✓		✓ (X)	✓		✓ ✓	✓ ✓	
8. CHECK ANTENN PROPER TENSI(	✓ ✓	✓ ✓	✓ X	✓ ✓	✓ ✓	✓ (X)	✓ ✓	✓ ✓	✓ X	✓		✓ (X)	✓		✓ ✓	✓ ✓	
9. INSPECT CANV. ITEMS FOR MILI	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ (X)	✓ ✓	✓ ✓	✓ X	✓		✓ (X)	✓		✓ ✓	✓ ✓	
10. INSPECT ACCE NESS: SWITCHE RELAYS, TRAN LIGHTS, BLOWE	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ (X)	✓ ✓	✓ ✓	✓ X	✓		✓ (X)	✓		✓ ✓	✓ ✓	
11. CLEAN AND/OR NAME PLATES,	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ (X)	✓ ✓	✓ ✓	✓ X	✓		✓ (X)	✓		✓ ✓	✓ ✓	
12. INSPECT STORA TERMINALS, SP INSPECT DRY B	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ (X)	✓ ✓	✓ ✓	✓ X	✓		✓ (X)	✓		✓ ✓	✓ ✓	

ADDITIONAL ITEMS FOR

ADDITION.	
13. INSPECT SHEL OF WEATHER-P	
14. CHECK TERMIN DIRT, LEAKS, C	
15. INSPECT SEATING OF READIL OUT ITEMS: TUBES, LAMPS, FUS CONNECTORS, VIBRATORS, PLUG-IN COILS.	
16. INSPECT RELAYS AND CIRCUIT BREAKERS FOR LOOSE MOUNTINGS, BAD CONTACTS, MIS-ALINEMENT OF CONTACTS AND SPRINGS, PROPER SPRING TENSION.	
17. INSPECT VARIABLE CAPACITORS FOR DIRT, MIS-ALINEMENT OF PLATES, LOOSE MOUNTINGS, MOISTURE.	
18. INSPECT RESISTORS, BUSHINGS AND INSULATORS FOR CRACKS, CHIPPING, BLISTERING, MOISTURE, DISCOLORATION.	
19. CLEAN AND TIGHTEN SWITCHES, TERMINAL BLOCKS, BLOWERS, RELAY CASE AND CABINETS NOT RE	
20. INSPECT TERMINAL BL CONNECTIONS, CRACKS	
21. INSPECT TERMINALS O RESISTORS FOR DIRT,	
22. INSPECT TRANSFORMEI AND RHEOSTATS FOR O	
23. INSPECT GENERATORS, MOTORS FOR BRUSH WE ARCING AND FITTING O	
24. INSPECT CATHODE RAY FOR BURNT SCREEN SP	
25. INSPECT WATERPROOF LEAKS, WORN OR LOOSE	

ADDITIONAL ITEMS FOR 2D AND 3D ECHELON INSPECTIONS	CONDITION
26. INSPECT ANTENNA FOR ECCENTRICITIES, CORROSION, LOOSE FIT, DAMAGED INSULATORS AND REFLECTORS.	
27. CHECK FOR NORMAL OPERATION.	
28. BEFORE SHIPPING OR STORING, REMOVE BATTERIES	

IF DEFICIENCIES NOTED ARE NOT CORRECTED DURING THE INSPECTION, INDICATE ACTION TAKEN FOR CORRECTION.

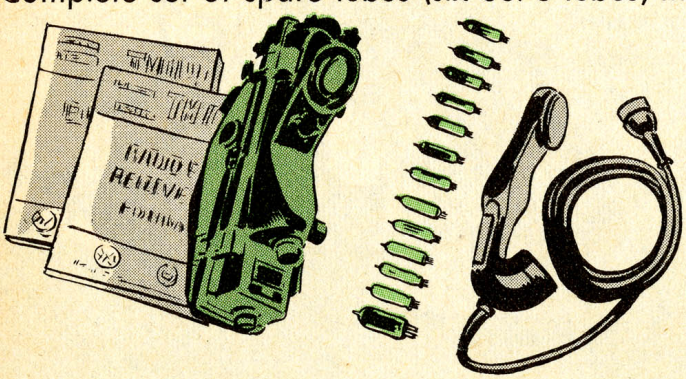
This DA 11-238 for first echelon shows how easy it is to keep a close tab on your handie-talkie. And the circled items in the 2nd and 3rd echelon portion give the word on what has to be checked comes time for the detail boys to have a look.

It's good for a month and cuts paper work down to real bone. Only the circled items, of course, refer to the PRC-6. Any other instructions, etc., are right there on the form itself . . .

Any GI who's ever used a handie-talkie knows there's a little more involved than grabbing a receiver-transmitter and making with the chatter. There are such things as auxiliary equipment, additional equipment, and some equipment that comes with the basic item:

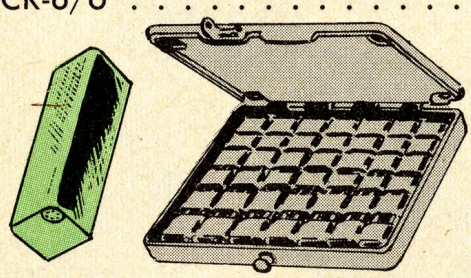
THIS IS WHAT YOU GET AS BASIC ISSUE:

Radio Receiver-Transmitter RT-196( )/PRC-6
Handset H-33( )/PT
Complete set of spare tubes (six 5678 tubes; three 5672 tubes; two 5676 tubes; one 2G21 tube; and one 3B4 tube. One spare is provided for each of the tubes (13) of the radio set—repairman holds these.)
Technical Manual
TM 11-296 (Sept 55) Operation and Organizational Maintenance, with changes 1 and 2.

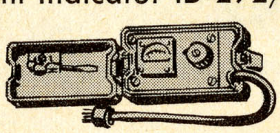


THIS IS WHAT IS DRAWN AS "ADDITIONAL EQUIPMENT REQUIRED":

Battery BA-270/U . . . . . One (Operator gets this.)
Crystal Kit CK-6/U . . . . . Consisting of 42 crystals—one for each operating frequency of the set except 51 mc. That is the crystal that is shipped with every PRC-6. (Second echelon repairman gets this.)



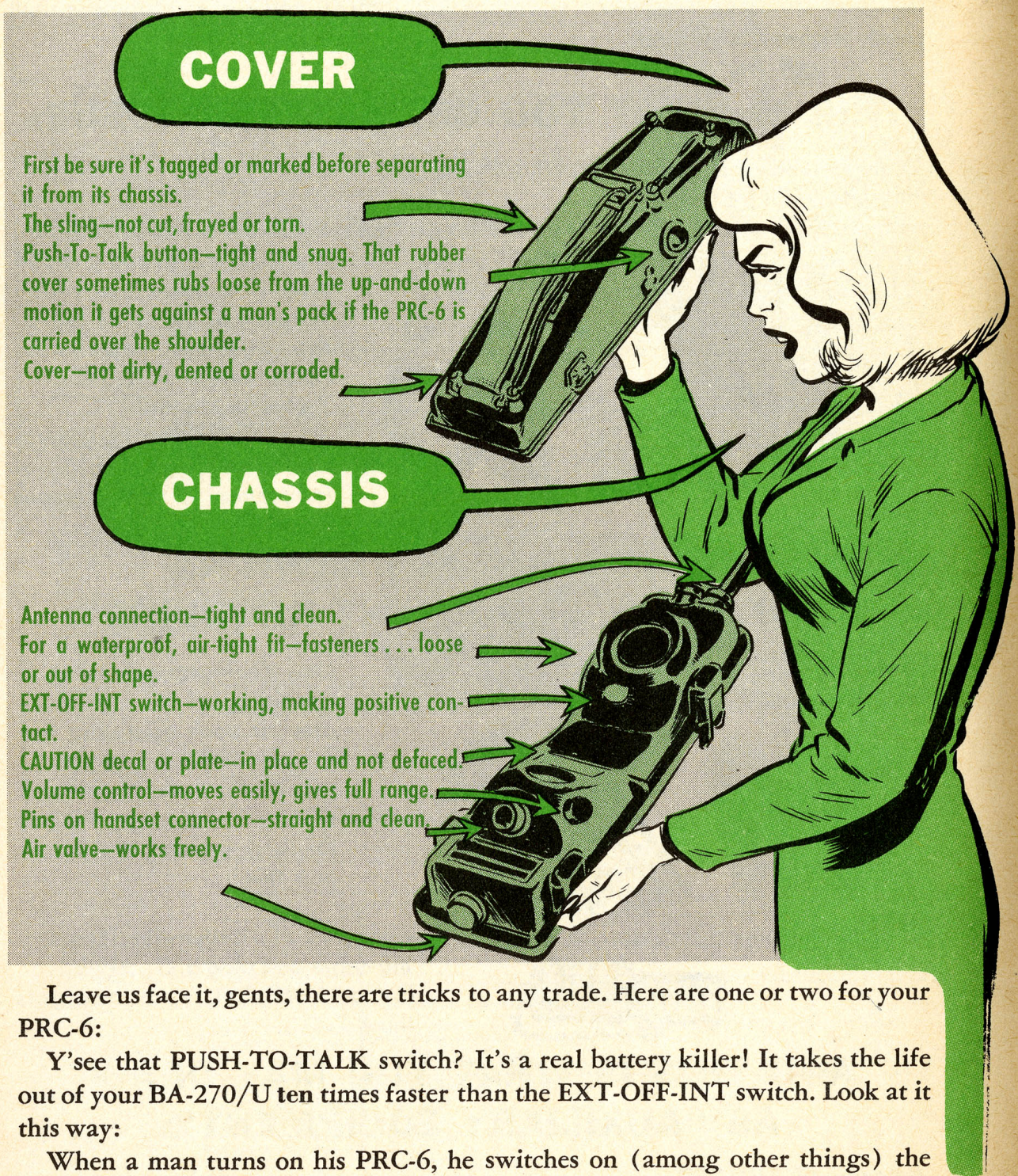
Channel Alinement Indicator ID-292/PRC-6—Consisting of a meter with a connecting cable and plug and screwdriver. (Second echelon repairman gets this.)



AND THIS IS WHAT YOU MAY DRAW AS "AUXILIARY EQUIPMENT":

Antenna AT-249/GRD . . . . . (Commonly known as a loop antenna for direction finding—second echelon repairman gets and holds these.)

H'yar now is a quick cover to chassis check which any inspector is liable to make. Also a check that any operator can make ahead of time:



Leave us face it, gents, there are tricks to any trade. Here are one or two for your PRC-6:

Y'see that PUSH-TO-TALK switch? It's a real battery killer! It takes the life out of your BA-270/U **ten** times faster than the EXT-OFF-INT switch. Look at it this way:

When a man turns on his PRC-6, he switches on (among other things) the **receiving** tubes. There are four tubes not in the circuit at this time, even though the set is on and ready to receive. These are the **transmitting** tubes. They light up only when the TALK switch is pushed. Go into action almost in a split second. Don't have to warm up or anything like that.

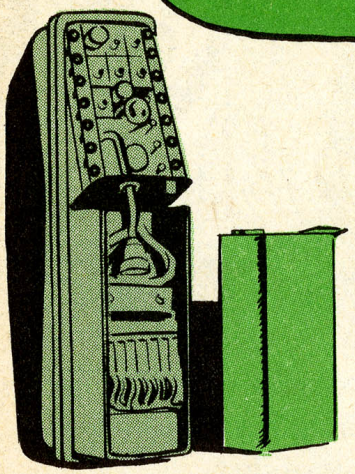
And when their filaments go on, they **really** take a bite out of a battery. For example, a PRC-6 with a fresh battery probably could stay on the air in a receiving condition for almost 24 hours. But it's only good for about one hour of sustained transmitting.

And the big drain sets in the second you push the TALK switch. Makes no never mind whether you're talking into the set or not—although that throws an additional drain on.

Moral of the story: If you feel like playing with something, pick on something beside the TALK switch of your PRC-6. Every poke you give it pulls life out of the battery fast.

Try not to stand there with your digit depressing the switch 15 or 20 seconds before actually making with the talk. Be ready to send your message as soon as you push it. Anything else will waste time and battery life. You never get back either one.

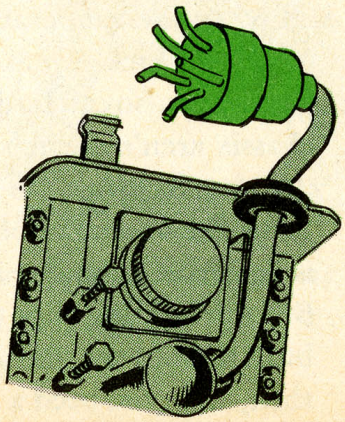
Speaking about OPERATION TIPS...



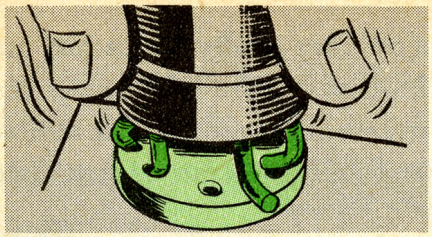
A PRC-6 without a good battery is something like a gal without a smile. Could mean you're licked from the start.

For one thing, the BA-270/U should be taken out of the handie-talkie any time the equipment is going to sit on a shelf for a while. Best to keep it dry and at a fairly constant temperature whenever that's possible. Otherwise, you'll get the green light for creepy corrosion, or at least speed up that unpopular process.

After all, it's a simple enough deal to slip those batteries in place. Although, like we said, there are tricks to the trade.



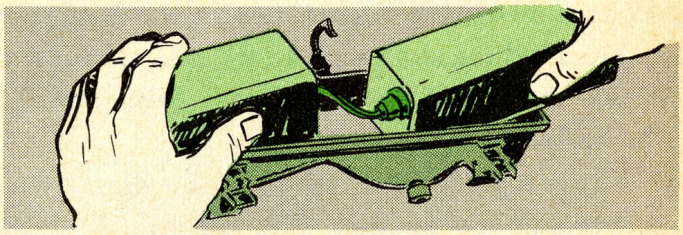
Sometimes the battery cable and plug make trouble. Like when the pins on the plug are bent. Or if the cable is a little frayed and worn where it joins the plug. A repairman will straighten out those problems. But the man who uses these sets can go a long way in making sure the trouble never shows up in the first place.

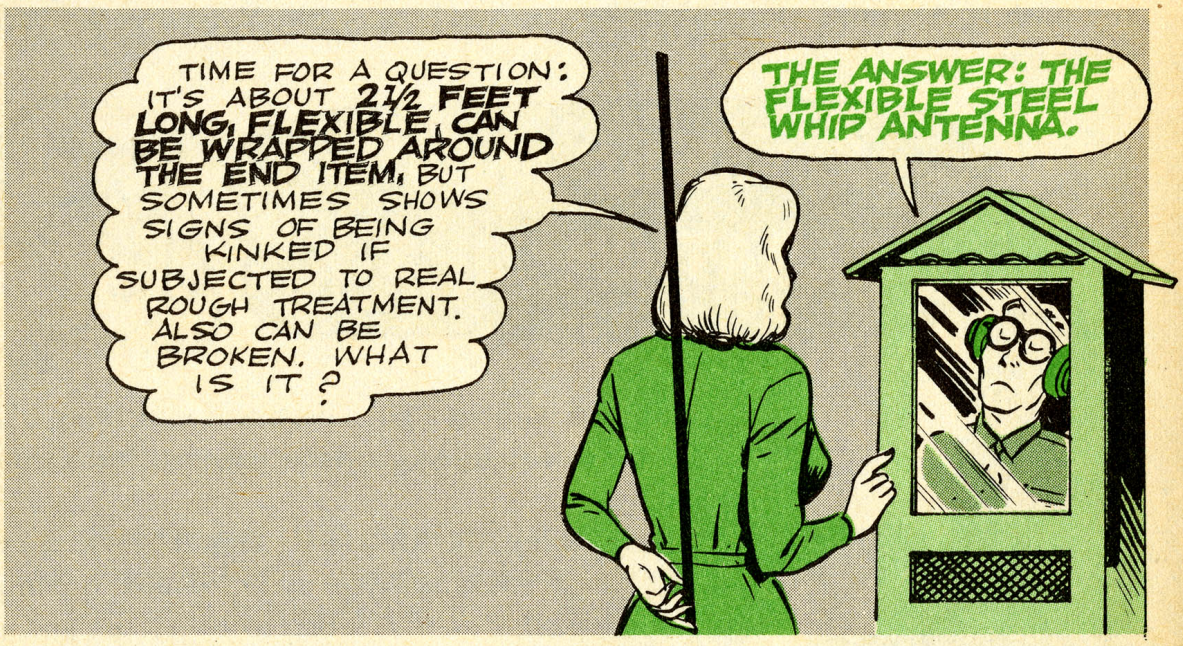


There've been stories about a guy who tried to put the plug into the battery socket without noticing the hole and pin arrangement. He actually got the plug in, too. But only that once, because after that pin, plug and socket were out of action.

Some PRC-6 men will slip the plug into the socket before putting the battery in place. That's a big help, because then all the maneuvering, tugging, etc., is done on the battery and not the cable.

If your model has two rubber grommets holding the cable to the chassis, then you almost have to slip the plug in first.

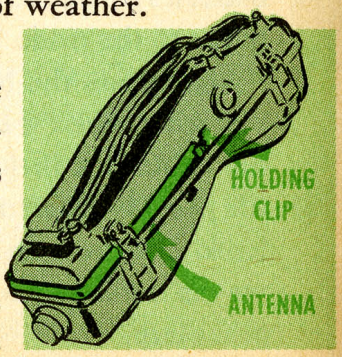




But flexible as that whip antenna is, it can pick up a permanent kink or bend if treated too roughly. This usually happens when something heavy sits on it for a while when it's in a bent position. There is a limit to its flexibility.

And when the temperature is crouched down there in sub-zero conditions, that thin steel can crack just as fast as anything else in that kind of weather.

PS: Antennas also can lead to teeth-gnashing when covers and chassis aren't matched up. Because the antennas on the "A" models have no protective plastic end clips. Naturally, the antenna-holding clip on the "A" model chassis is designed to hold that kind of unprotected antenna tip. But the holding clips on the "plain" and "B" models are built to hold the plastic-tipped antennas. Another reason, then, why you need a "matched set" of cover and chassis.

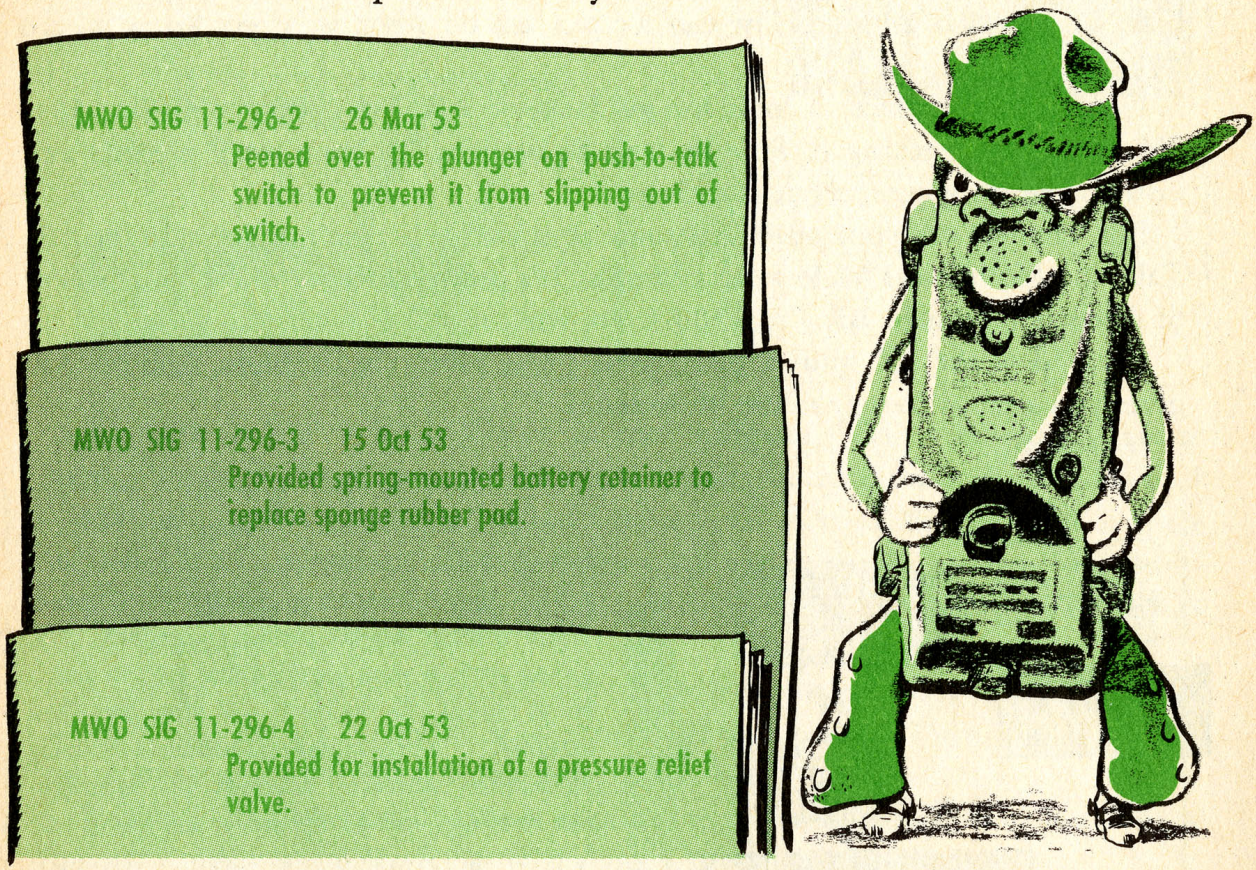


One more operating tip may help you get the message thru. Always keep your eye on the pressure. Yes, even on a PRC-6. And especially if your outfit is on the move.

As a general rule, keep the AIR VALVE closed. Finger-tight. But not too tight. If you're going to tangle with water (like during a fording operation) and there's a chance you might get more'n your feet wet, make triple sure the air valve is shut tight. Same if you're dragging along in the rain, snow, sleet and what have you.

Best of all, keep that valve closed all the time—except when you're actually going on the air or making like a mountain climber and increasing your elevation fairly fast and often. The pressure inside the set has to be the same as on the outside. The air valve is the only way to make sure that it is.

There may be a whisker or three on these MWO's, but a quick run-down on them should add to an operator's "savvy" on his PRC-6.



Your PRC-6 handie-talkie will live up to its name every time with the right doses of preventive maintenance. Only a few minutes a day and just a few more minutes each week . . . will guarantee to get the message thru.

When you've got a job to do—but no instructions on how to do it—things can get pretty rough.

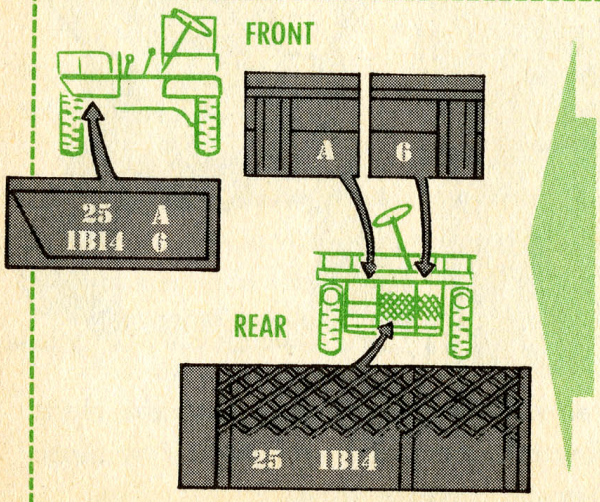
That's the deal a lot of guys run into putting unit markings on their vehicles. Been quite a few asking: How can we put 'em on when we don't know where they go?

Naturally, the place to look for guidance is AR 746-2300-1 (29 Dec 55), "Marking and Packing of Supplies and Equipment." It has a lot of pictures and instructions on where to put markings.

But, chances are your outfit has some equipment that isn't pictured in the AR. Take the Mechanical Mule as an example. It's pretty new, and there's no picture or discussion of it in AR 746-2300-1. So, what to do?

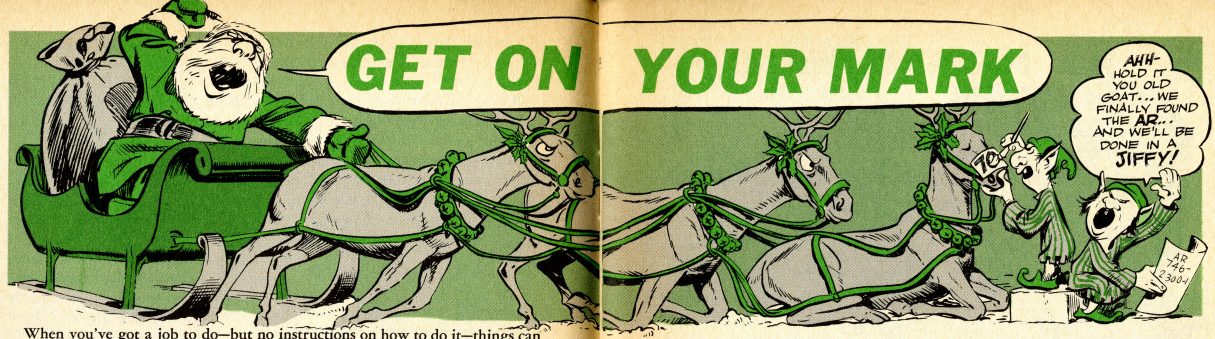
Para 7d of the AR, plus a little horse sense, solves the problem. And the AR gives you a lot of leeway to use horse sense.

It says this:



"The unit identification markings will normally appear on both the front and rear of each vehicle, usually on the bumpers of vehicles so equipped. Where a more suitable surface is available, such surface may be used provided that the location is not in conflict with the location of other prescribed markings . . . Where no suitable surface is available on the front or rear of a vehicle, unit identification markings will be applied in an appropriate location on each side of the vehicle. When necessary, such markings may be applied to the mounted equipment."

GET ON YOUR MARK



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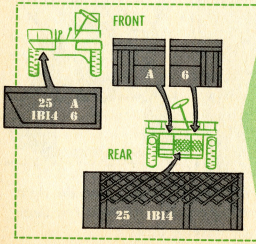

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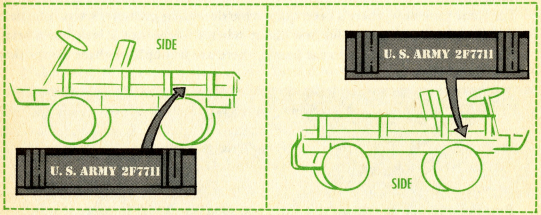


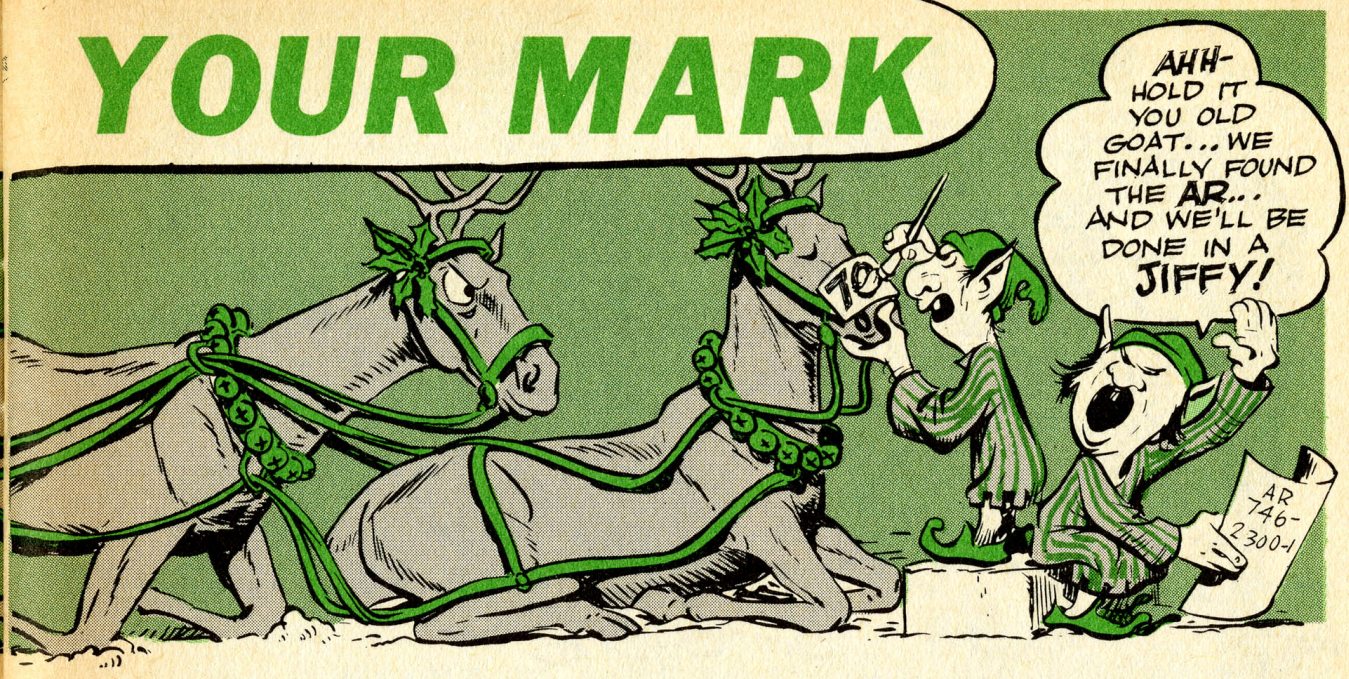
You can see that a lot is left up to your judgment. So, when you've got to mark a piece of equipment and can't find specific instructions in the AR, look for a good place on the front and rear. If there is none, try the sides. And, if there are no marking places at all on the item itself (an unusual situation, but a marking place is hard to find on some trailers), the AR says it's OK to put the markings on the mounted equipment.

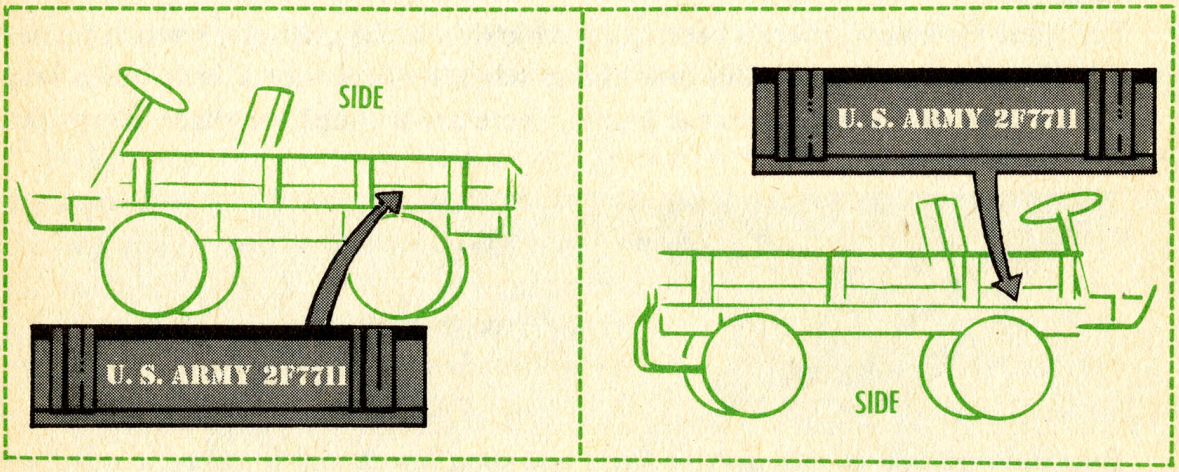
So, where there's any doubt about where to put unit markings, get your CO, or whoever has the say, to decide where the markings will go. Then, naturally, you mark all similar equipment in the same place for uniformity.

Take a look at how this Mule is marked in the front and rear. They're the most logical places for your unit markings to go.

No point to delay in putting unit markings on your equipment for lack of instructions. Para 7d of AR 746-2300-1 gives you the authority to pick the right spot.

YOUR MARK





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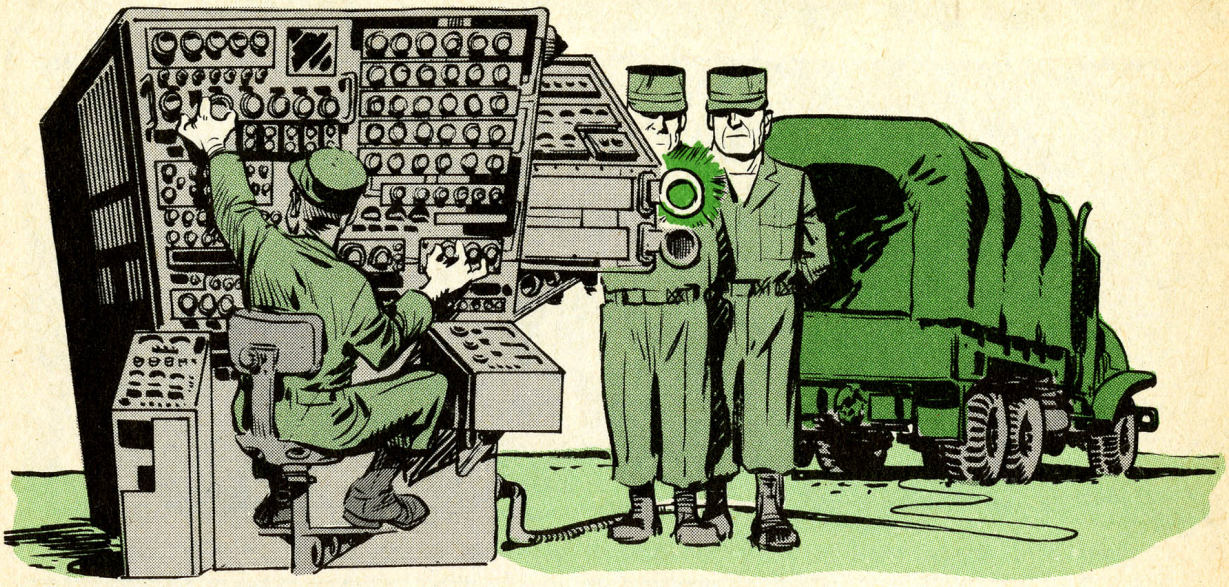
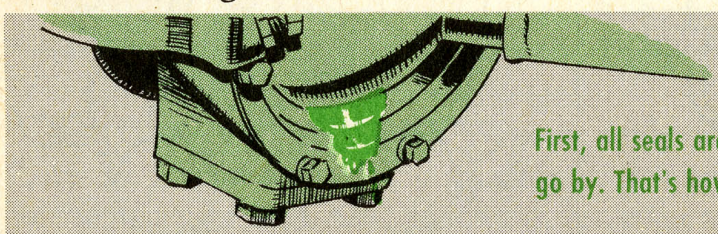
SEEP?
LEAK?

NO GUESSING NOW



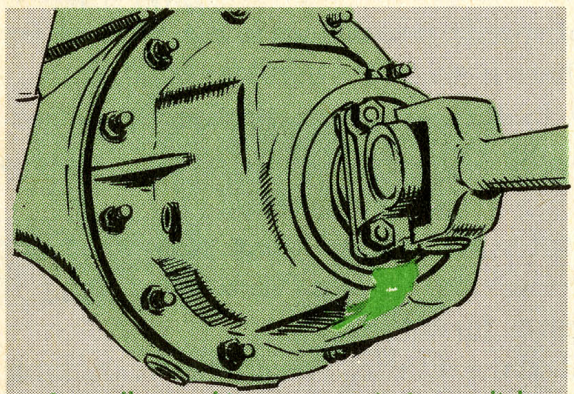
For some time now, there's been quite a hassle among greasers, wrench turners and those who know gear cases best about when's a leak not a leak but a seep.

Before actually getting into the hassle, there are a couple or three things that should be brought out.

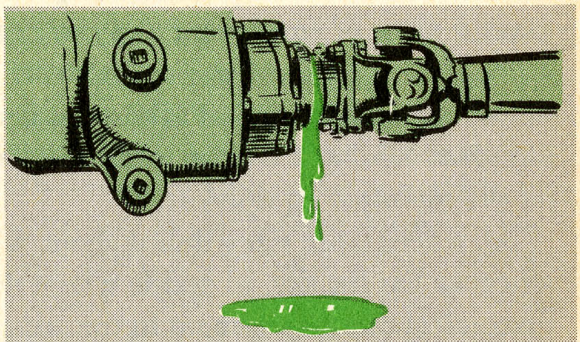


First, all seals are supposed to let a little goo go by. That's how they lube themselves.

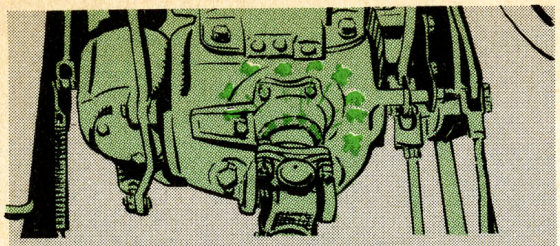
But, the question is, when's this little goo turn into a lot? In other words, how do you know when a seal's shot and is letting lots of lube flow through?



Generally speaking, a seep is just a light smear of lube at the seal that collects dust. It leaves a damp or dark spot **right on** the particular gear case.



When you have a leak, tho, lube flows past the seal and drips from the case. Most times a leak can be noticed by a puddle of black goo on the floor or ground after a vehicle's been parked for a time.



Sometimes a leak can be spotted when lube is flung onto surrounding parts.

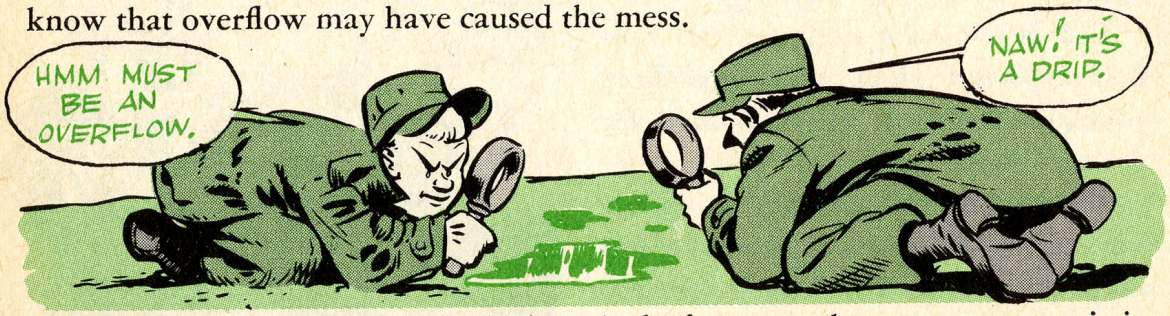
You can see by these general statements that there can be a lot of opinion and controversy if common horse sense is not used—in other words, what'll be a leak to one guy, may be a seep to another.

The best way to tell if you've got a leak in your equipment is like this:

If you think you're pouring too much lube into a particular part at LO time, fill that part up with lube to its right level. Then, leave the truck parked for a time—doesn't really matter whether she's heated up or not. If, after a time, you spot that black goo on the floor underneath the part, then you know she's leaking for some reason. If you want to find out how bad the leak is, stick a pan or bucket under the part.

But, before rushing ahead like a bull in a china shop and ripping out the seals, better make sure you're not losing lube from leaking gaskets, a cracked housing, a loose drain plug, missing cover cap screws or dirty or non-operating breathers. Changing seals is a rough enough job—no sense doing it unless you're really sure that it's the cause of the leak.

Make sure, for example, you never mistake overflow for a leak and change seals needlessly. It's very possible that too much lube was poured into a part in the first place. On this one, you'll have to use your head. If, for example, you find lots of lube sprayed over a part and yet that part's lube level isn't low, then you know that overflow may have caused the mess.

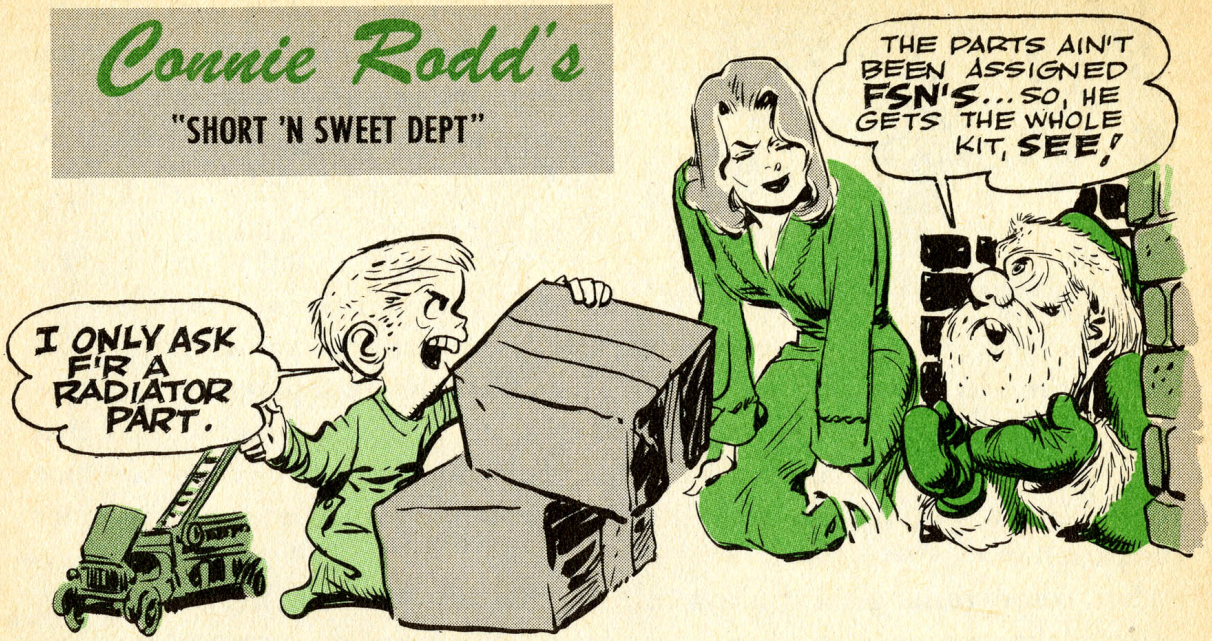


Seeps are pretty easy to spot. Take a look, for example, at your transmission. No doubt there are black, oily-looking spots around the transmission cover's bolts. This is a seep—it's just a bit of lube. It could be caused by the internal pressure of the transmission building up to a point where it forces out a little lube. But, it sure as heck is not a leak.

Another thing—when checking over lube levels, keep your LO and TM handy so you can see where the level plugs are. These publications will also tip you off to when you're supposed to service your truck and how much lube the transmission, transfer and differentials take. By the way, make sure you check your lube level at the right level plug—check it at any other place, and you'll get a wrong reading.

Connie Rodd's

"SHORT 'N SWEET DEPT"



Radiator results

Hey, you parts men . . . the parts to put that new radiator (2930-503-7235) on your 2½-ton 6x6 truck (SNL G-742) should be available for you now. The parts you need come in a kit under FSN 2510-097-2605.

The distribution is limited for now so if they aren't right on hand just keep yourself—and the truck—cool, man, for the meanwhile.

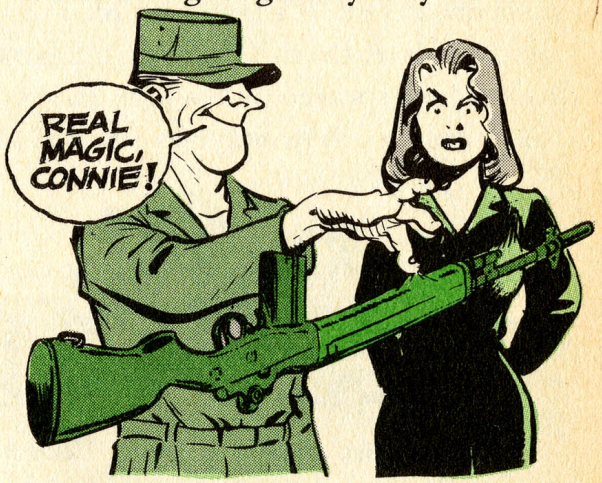
But don't try ordering any individual parts of the kit 'cause they haven't been assigned any FSN's. You'll get the whole kit and that's it. Just like the song, "All Or Nothing At All."

Oil's well

It's been said before . . . but it won't hurt to say it again.

That is, you use raw linseed oil **only** to call a halt to the wooden parts of your weapons cracking or drying out. In other words, don't—but don't—use boiled linseed oil on the wood.

You want to know why? Boiled linseed oil has stuff in it that makes the oil dry out. When it's drying, the oil leaves a film that goes gummy on you.

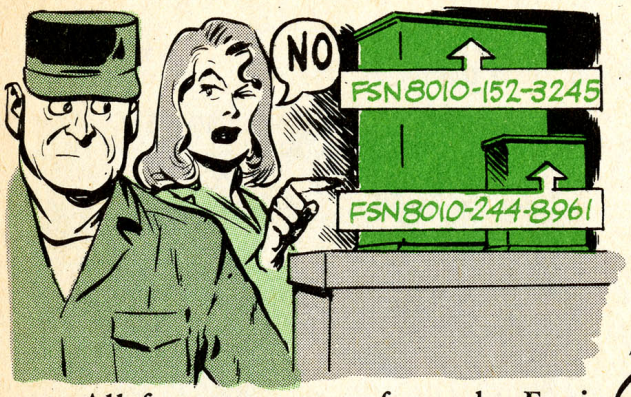


What you do is rub the raw oil into the wood with your fingers and then wipe off any that's left over with a rag. Don't let the stuff get on moving metal parts . . . it fouls 'em up.

FSN 8010-224-6556 gets you a quart of raw linseed oil . . . FSN 8010-221-0611 is worth a gallon.

If you see FSN 8010-244-8961 on a pint can or FSN 8010-152-3245 on a

gallon can, steer clear of it. Those numbers mean it's boiled oil.

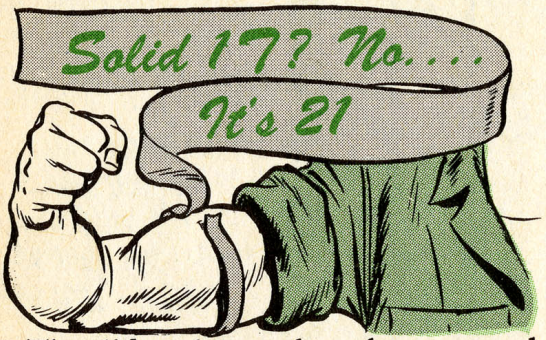


All four cans come from the Engineers.

A must

Be sure you get a hold of Change 4 (28 May 58) to TM 10-1600. It gives you the full poop on scheduling MHE maintenance services on the DD Form 314, "Preventive Maintenance Schedule and Record."

This new change supersedes Changes 1, 2 and 3. It also gives the lowdown on performing inspections and maintenance according to DA Form 465, "Work Sheet for Materials-Handling Equipment."



The slide rule guys have been at work on figuring out the vehicle classification for your 5-ton M62 wrecker. They've come up with the correct figure—**21**.

That's right . . . a big, fat **21**. Not 17, like PS 69, page 38 said. It seems there were some factors that got left out when that 17 was figured.

So, remember, when you come to a bridge, your M62 wrecker is **21**.

Easy on the draw? Naw!

Firing your M2A1 portable flame thrower's not like sitting in on a poker game. None of that slow and easy on the draw stuff here.

Even if your fire-shooter does have five "aces" up its sleeve, they won't be the least inclined to ignite if you caress that ignition trigger like it was your last stack of chips.

Instead, handle that baby like you'd reach for the pot—fast and vigorous-like. This'll make sure that the metal match pin'll go up through the plastic body of the cylinder with enough force to start your flame.

Remember, too, you've got five chances—and only five—to stay in the

game. If you goof with all five matches, the whole ignition cylinder has to be replaced, not to mention **your** replacement, since it's not likely you'll be carrying a spare in your hip pocket when the chips are down.

So stay a winner and pull that trigger like it oughta be pulled—quick, fast and hard.

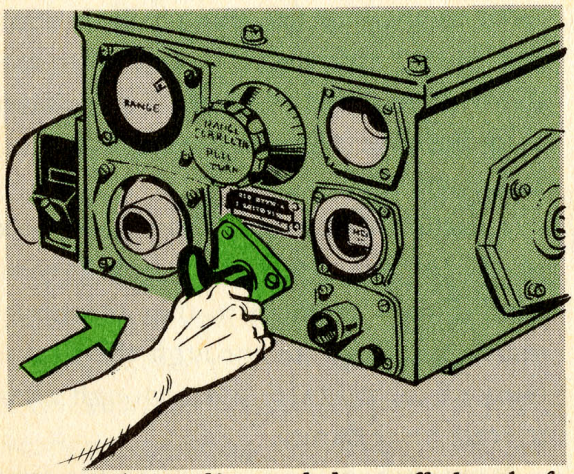
Foolish seizure

How goes it with your M48-series tank?

"Not bad," you say . . . "except for some minor things." Sure hope you're not passing it off as minor if you're having troubles with your M13 ballistic computer.

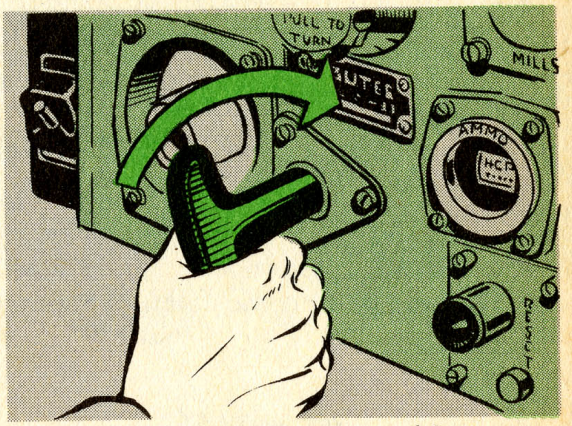
No, sir . . . if the ammo selector shaft is binding or seizing, pass the word along to your support unit.

And to help call a halt to more of the same trouble developing in the future, keep the ammo selector handle in as far as it will go when you're not using it.



That'll keep dirt and dust off the shaft and cut down on the chances of the handle snagging on something and bending the shaft. A bent shaft seizes, you know.

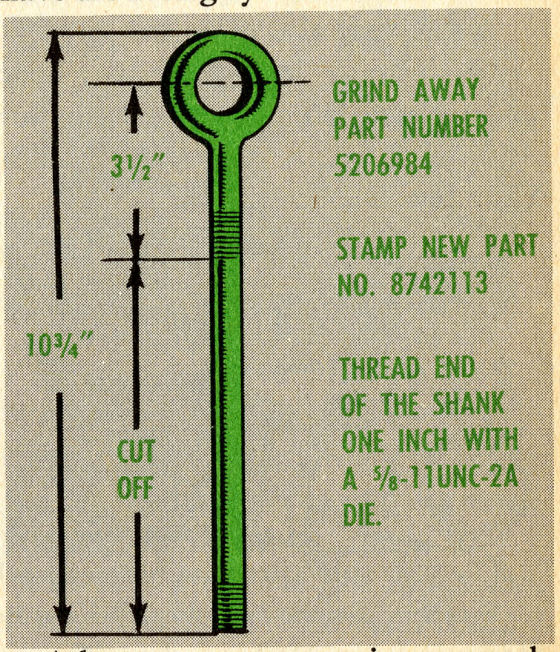
It wouldn't hurt to also give the handle a few twists now and again to



make sure things aren't working up to a bind or seize.

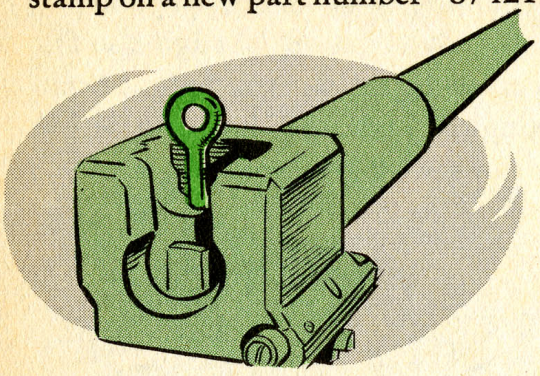
Shorten the bolt

It's easier to remove the breechblock from your 90-mm tank gun when you have the lifting eye shortened.



Ask your support unit to cut the shank 3½ inches from the center of the eye . . . thread the end of the shank one

inch with a ⅝-11 UNC-2A die... grind away the 5206984 part number . . . and stamp on a new part number—8742113.



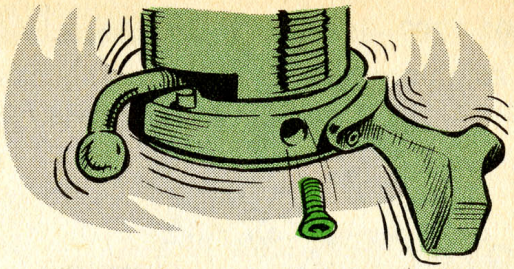
You'll find the stunted lifting eye gives you more maneuvering room for the breechblock.

Troubles vanish with varnish

So the locking collar screws on your M104 or M104A1 periscope mounts have been working loose from vibration and letting the collar slip on you.

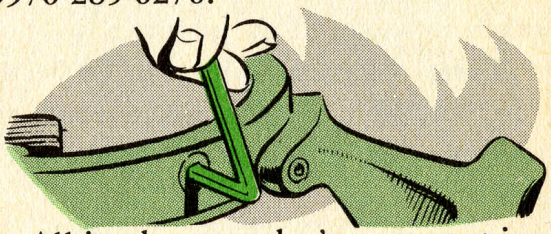
You know about the mounts if you're with an M48A1 or M48A2 tank . . . M59 armored personnel carrier . . . or M84 self-propelled 4.2-in mortar.

The way it is . . . when the screws get loose, a couple things can happen—like fouled up boresight, a battered periscope or lost screws.



There's some good news, tho . . . some stuff the Engineers have is great for keeping all three screws tight. That

would be insulating varnish, electrical, which comes in a pint can under FSN 5970-285-0270.



All it takes to make 'em stay put is a coupla drops of the varnish on the threads and under the heads of the screws.

Otter order

You M76 Otter operators crunching around in those areas where the temperature is continually below 0 degrees having trouble with your valve lifters and camshafts? If so, got news for you.

If you're in an area where the temperature runs from 0 degrees to —65 degrees F, drain that vehicle's crankcase and refill it with OES. Then, get some Additive, Arctic, Engine, FSN 2805-

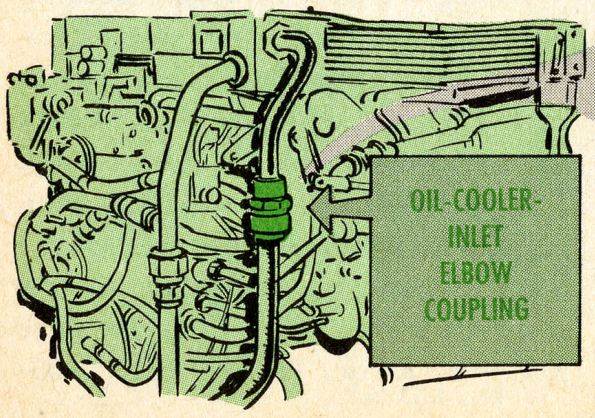
591-1207—it comes in containers. Add a container every time you change your oil—every 100 hours of operation.

If your engine eats up more than four quarts of oil any time before that 100-hour oil change comes around, drain the crankcase again and refill it. Add another container of the additive.

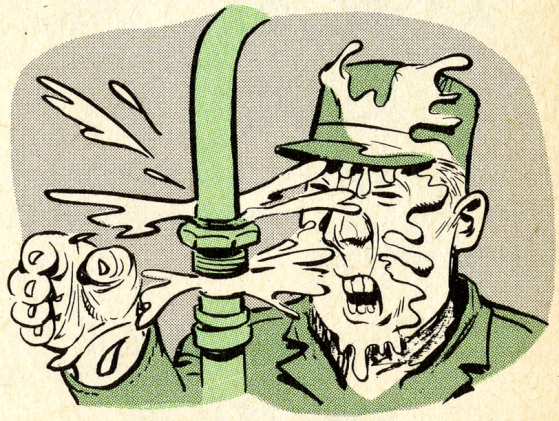
This dope is spelled out in SB 9-153 (25 Sept 57). Use this SB as your authority when requisitioning the stuff.

Elbows in

M48A2 tankers . . . watch out for the oil-cooler-inlet elbow coupling (FSN 2930-322-9573) on your AVI 1790-8 engines—'specially on cold weather starts.

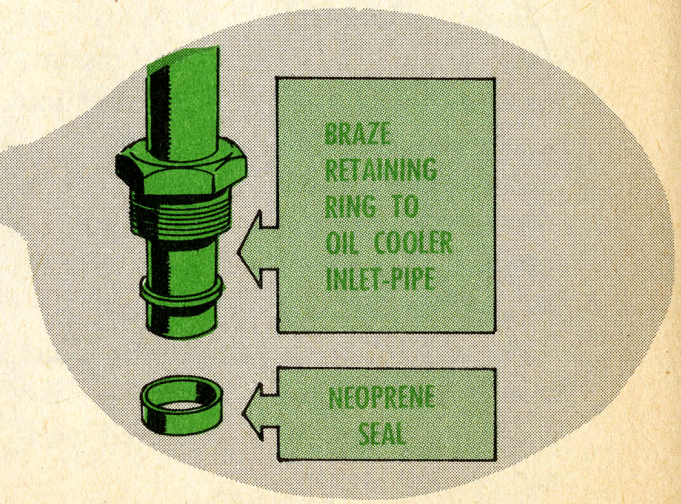


Oil pressure can build up high enough to force the inlet elbow from the coupling. When it does pop, oil gets pumped right out of the engine so fast it'll cause the main-crankshaft and connecting-rod bearing to burn out before you can say "flat-footed floogie with a floy floy."



This coupling pop is the result of oil pressure forcing the inlet pipe through the retaining ring. This ring, located under the neoprene seal, is pressed to the inlet elbow pipe at the time of manufacture and is meant to stay put.

To make the elbow coupling hold, have your support unit braze the retaining ring to the oil-cooler inlet-pipe. Get that little job done right now and save a lot of trouble later on.



JOE'S DOPE
IDLE NOT
ZZZ
THINK I'LL TAKE A SHORT SNOOZE, 'CAUSE CONNIE'S GONNA BE A WHILE. 'N' THERE'S NO SENSE IN STANDING OUT IN THE COLD 'N' FRREEZZZZZZ
WOT'S GOIN' ON HERE?
SOB... HE WAS A REAL NICE GUY... TOO BAD HE LEFT HIS MOTOR IDLING ALL THE TIME. WOT A WAY T' GO... SOB... MONOXIDE POISONING!
HUH

HEY, CONNIE!! THAT'S MY NAME ON HERE!!
TSK, TSK, WHY DO THESE GUYS KEEP IDLIN' THEIR ENGINES LIKE THEY DO?
LOT'S OF REASONS LIKE THESE...
JOE
1.
WOTTAYA CRAZY? IF I SHUT THAT ENGINE OFF IN THIS COLD...I'LL NEVER GET IT STARTED.
2.
YOU GUYS KIN STAND OUTSIDE 'N' FREEZE IF Y' WANT...I'LL BE IN THIS TRUCK...WITH THE HEATER GOIN'!
3.
KEEP YOUR ENGINE IDLING...MY SIGNAL'S FADING...THE BATTERIES NEED CHARGING.
I DUNNO CONNIE, THEY ALL SORTA MAKE SENSE TO ME.
SURE THEY DO, BUT THERE'S A BETTER WAY TO GET RESULTS!
CONNIE...CONNIE... Y'WALKED RIGHT THRU ME. WAIT... CAN'T YA HEAR ME?
FIRST...VEHICLES IN COLD CLIMATES CAN BE STARTED... IF THE RIGHT WINTERIZATION EQUIPMENT IS PUT ON AND KEPT UP TO SNUFF.
CHECK YOUR VEHICLE'S TM CAREFULLY
KEEP YOUR WINTER PM IN HIGH GEAR

SECOND, COLD WEATHER CLOTHING IS NOW BEING ISSUED... SO IT'S UP TO YOU TO DRESS WARM WHEN GOING ON A COLD WEATHER TRIP. DRESSED NICE AND SNUG YOU WON'T BE TEMPTED TO SIT IN A CLOSED CAB WITH THE ENGINE RUNNING TO KEEP WARM.

SOB NOT ONLY IS IT BAD FOR THE ENGINE BUT COULD LEAD TO "CHOKE" CARBON MONOXIDE POISONING. SOB

TESTS SHOW THAT ON **RADIO** EQUIPPED TRUCKS (ONES WITH THE STANDARD **24-VOLT DC** SYSTEM), IDLING DOES NOT CHARGE YOUR BATTERIES 'CAUSE GENERATORS DON'T CUT IN AT IDLE SPEEDS.

All trucks that are equipped with radio equipment should be equipped with the AC-DC 100-amp generating systems like these MWO's say:

1/4-Ton Trucks	MWO Ord G740-W11 MWO Ord G758-W6
3/4-Ton Trucks	MWO Ord G741-W12
2 1/2-Ton Trucks	MWO Ord G742-W26 MWO Ord G749-W40

G-G-GOLLY! MAYBE IT'S TRUE...I WALKED RIGHT BETWEEN THEM.

But it's been found that all radios used in tactical wheeled vehicles running their engines at 1200 RPM. . . .

1200

EQUALS 20 MPH ROAD SPEED

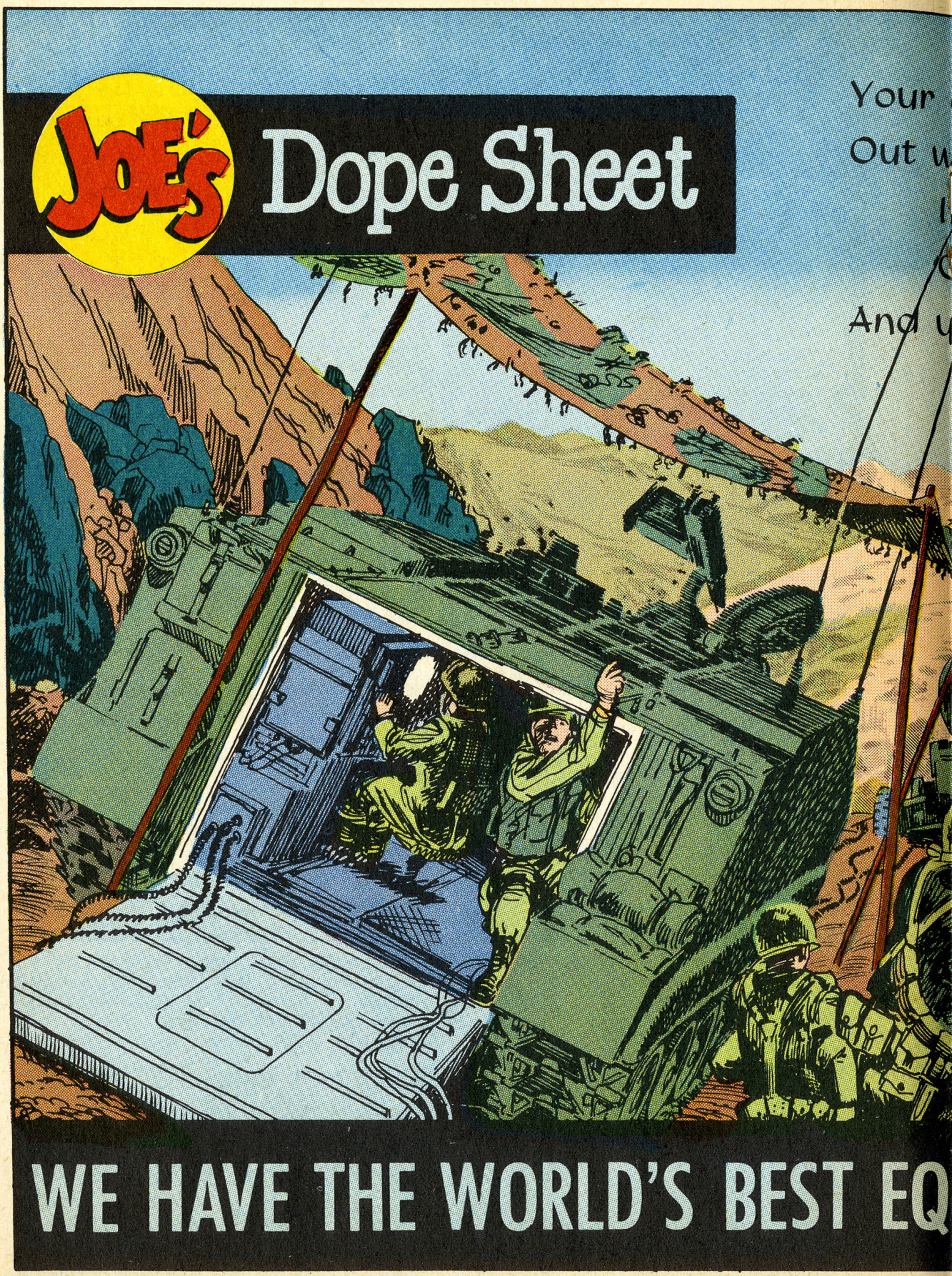
And when run in cycles of . . .

ONE HOUR ON AND ONE HOUR OFF

THIS PROCEDURE KEEPS BATTERIES UP TO PAR, AND WILL STOP MOST OF THE EVIL EFFECTS OF IDLING!

HI...

NOW, WITH TRACKED VEHICLES, Y'GET A LOT OF SPARK PLUG FOULING, AND Y'KNOW CHANGING A SET OF PLUGS IN A TANK IS ONE HECK OF A JOB. LET ALONE CLEANING AND GAPPING 'EM.


JOE'S
Dope Sheet
Your
Out w
I
&
And y
WE HAVE THE WORLD'S BEST EQ

JOE'S
Dope Sheet
Your engines will be up to snuff
Out where the going's real rough,
If you keep a close eye
On how to idle, and why,
And you'll be back to say: "It was tough."
WE HAVE THE WORLD'S BEST EQUIPMENT ...Take care of it

engines will be up to snuff
here the going's real rough.
you keep a close eye
n how to idle, and why,
ou'll be back to say: "It was tough."
UIPMENT ...Take care of it

YOU SEE, MOST PLUG FOULING TAKES PLACE WHILE YOUR ENGINE IS IDLING.

In fact, it's better to stop your main engine whenever you can.

Y'can use Little Joe to supply current to:

RADIO

TURRET

BUT, if the situation calls for it, such as heavy fire missions, or shifting targets, use main engine.

NOW, IF YOUR SITUATION WARRANTS YOUR RUNNING THE MAIN ENGINE, REV 'ER UP TO 1000 RPM, RATHER THAN THE USUAL 650.

BUT, WHEN YOU COME TO THE **M-59 APC** THINGS ARE A BIT DIFFERENT. YOU SEE IT HASN'T ANY AUXILIARY ENGINE, AND SO HAS A CHARGING SYSTEM THAT'LL CHARGE WHILE THE ENGINE IS IDLING.

BUT ALL THAT'S BEEN SAID ABOUT IDLING IS STILL TRUE FOR THIS VEHICLE.

When M-59's are used in straight troop carrying service, just shut 'em off when you have to wait . . .

But if you gotta wait a while, and you're afraid Y' might not start 'em up agin on account of the cold.

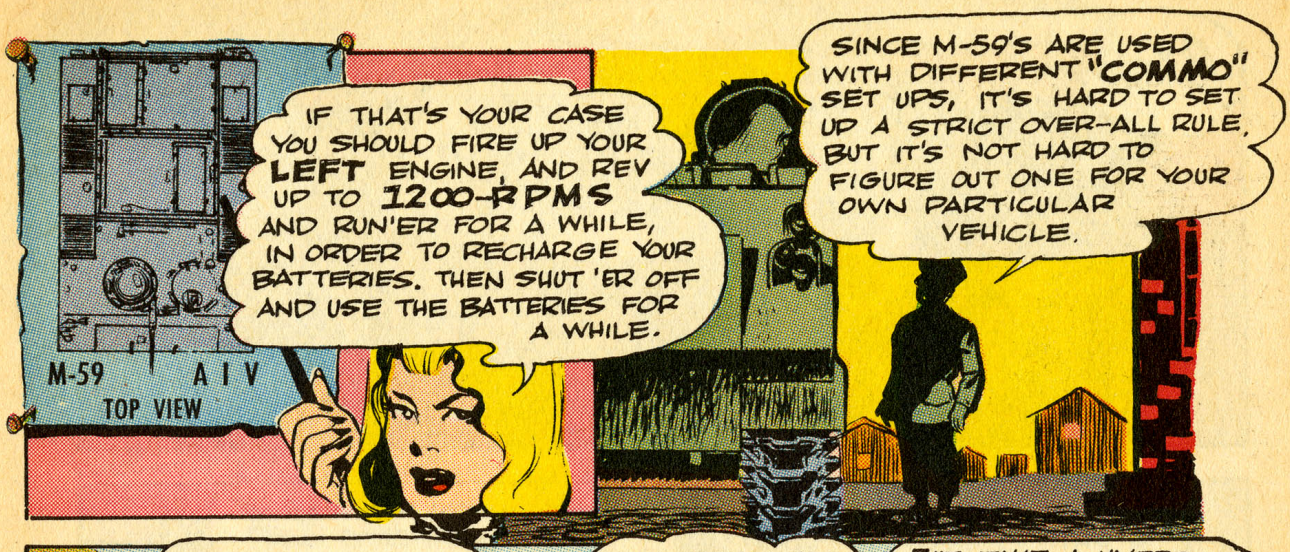
1 KICK 'EM OVER EVERY ONCE 'N A WHILE

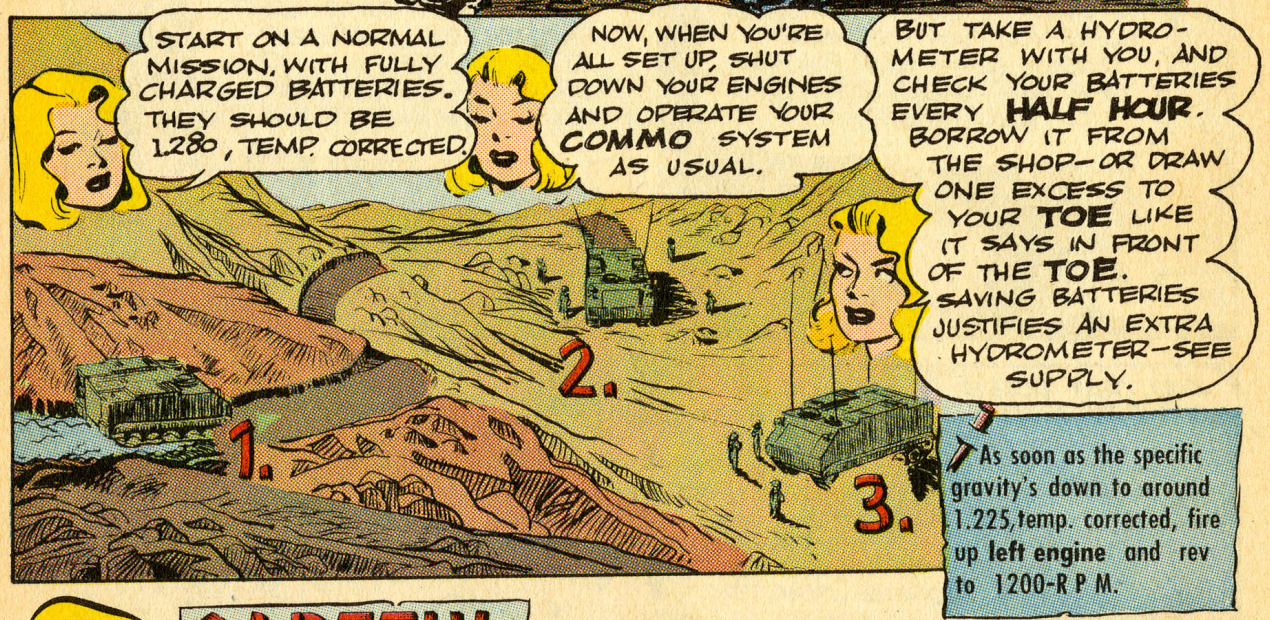
1200

3 THEN Y' SHUT 'EM OFF

2 AND RUN 'EM AT ABOUT 1200 R P M TILL THEY'RE WARM.

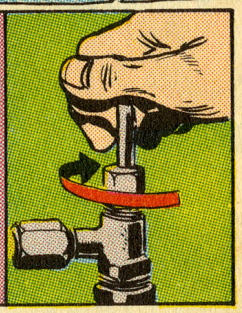
THE REAL PROBLEM IS WHEN YOUR M-59 IS A ROLLIN' CP LOADED WITH RADIOS AND ELECTRONIC GEAR.



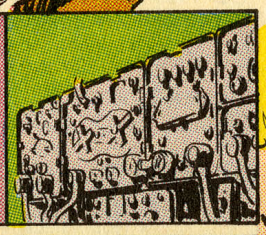


✓ As soon as the specific gravity's down to around 1.225, temp. corrected, fire up **left engine** and rev to 1200-R P M.

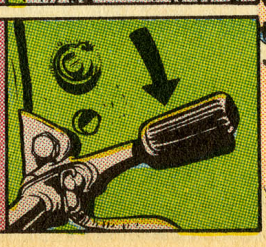
✓ On older M-59's equipped with fuel shut-off valves. Shut off line to the right engine while running the left one, so you won't run gas thru a bad carburator float valve.

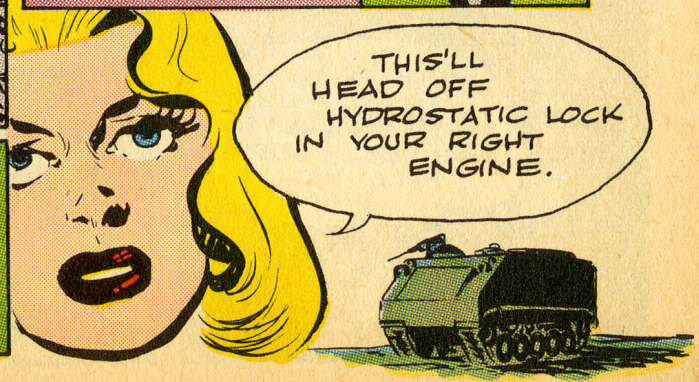


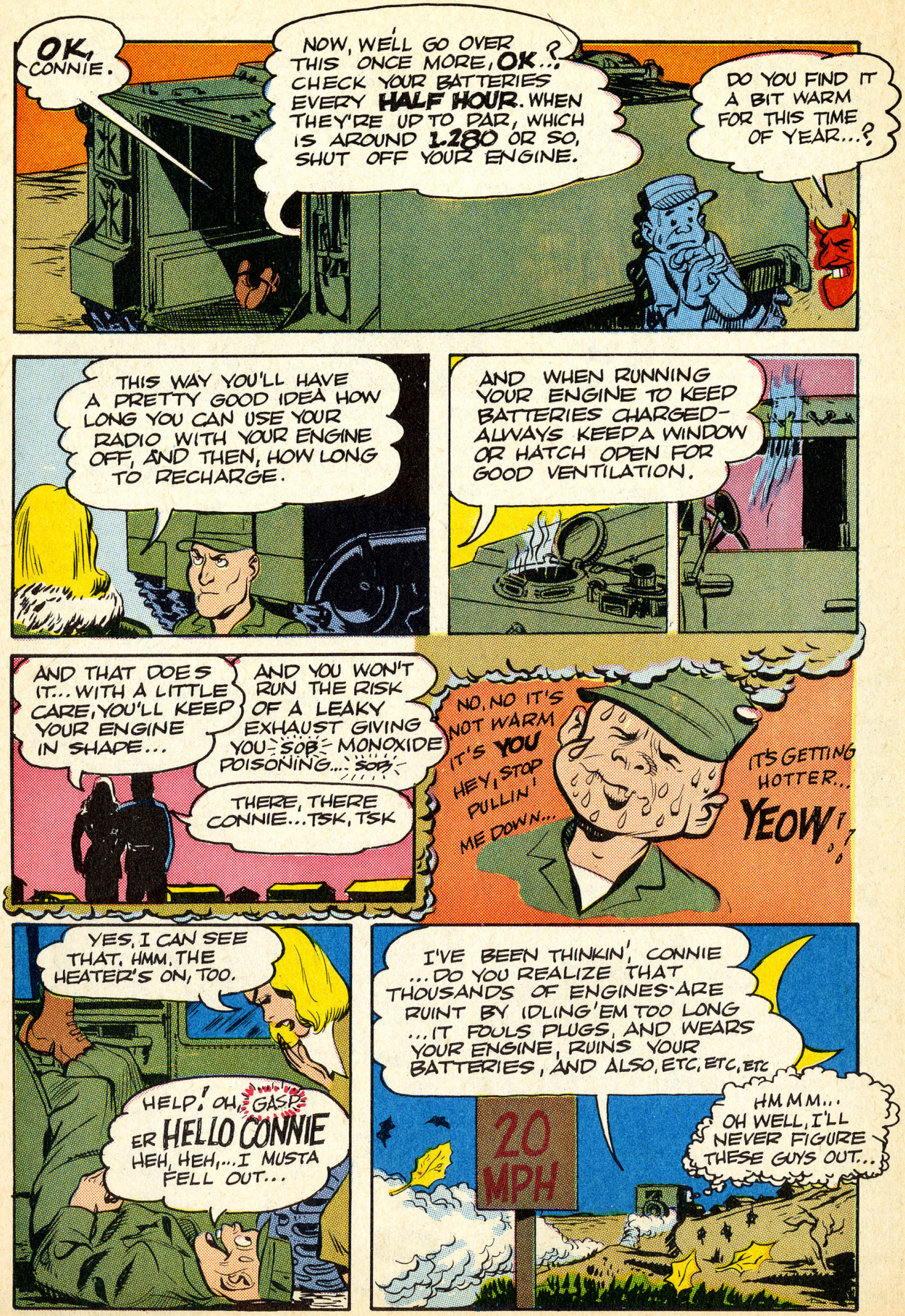
✓ Be sure your radios are **off** when you start your engine. This protects 'em from voltage surges when charging systems start.



✓ Also be sure your transmission auxiliary shift levers are **down,** putting the transmission in neutral.






OK, CONNIE.
NOW, WE'LL GO OVER THIS ONCE MORE, OK...? CHECK YOUR BATTERIES EVERY HALF HOUR. WHEN THEY'RE UP TO PAR, WHICH IS AROUND 1.280 OR SO, SHUT OFF YOUR ENGINE.
DO YOU FIND IT A BIT WARM FOR THIS TIME OF YEAR...?
THIS WAY YOU'LL HAVE A PRETTY GOOD IDEA HOW LONG YOU CAN USE YOUR RADIO WITH YOUR ENGINE OFF, AND THEN, HOW LONG TO RECHARGE.
AND WHEN RUNNING YOUR ENGINE TO KEEP BATTERIES CHARGED- ALWAYS KEEP A WINDOW OR HATCH OPEN FOR GOOD VENTILATION.
AND THAT DOES IT... WITH A LITTLE CARE, YOU'LL KEEP YOUR ENGINE IN SHAPE...
AND YOU WON'T RUN THE RISK OF A LEAKY EXHAUST GIVING YOU SOB- MONOXIDE POISONING... SOB
THERE, THERE CONNIE... TSK, TSK
NO, NO IT'S NOT WARM IT'S YOU HEY, STOP PULLIN' ME DOWN...
IT'S GETTING HOTTER... YEOW!
YES, I CAN SEE THAT, HMM, THE HEATER'S ON, TOO.
HELP! OH, GASP ER HELLO CONNIE HEH, HEH,... I MUSTA FELL OUT...
I'VE BEEN THINKIN', CONNIE ...DO YOU REALIZE THAT THOUSANDS OF ENGINES ARE RUINT BY IDLING 'EM TOO LONG ...IT FOULS PLUGS, AND WEARS YOUR ENGINE, RUINS YOUR BATTERIES, AND ALSO, ETC, ETC, ETC
20 MPH
HMMM... OH WELL, I'LL NEVER FIGURE THESE GUYS OUT...

INTERCHANGEABLE IGNITERS?

Dear Half-Mast,

What's the scoop on the distributor assemblies for the M38 and M38A1 Jeeps? ORD 7 SNL's G740 (Jun 56) and G758 (Apr 56) tell you to use the same distributor and coil assembly on both vehicles:

Distributor, w/coil, assembly, FSN 2920-335-4706, AL-IAU4006AUT, G758-735-8569 (Ord Part Number7358569). The numbers all check out.

But, TM 9-8014 (April 55) page 170, paragraph 147 b gives 22 degrees for the ignition point dwell for the M38A1, and TM 9-8012 (Jan 56), page 175, paragraph 140 b gives 38 degrees for the M38.

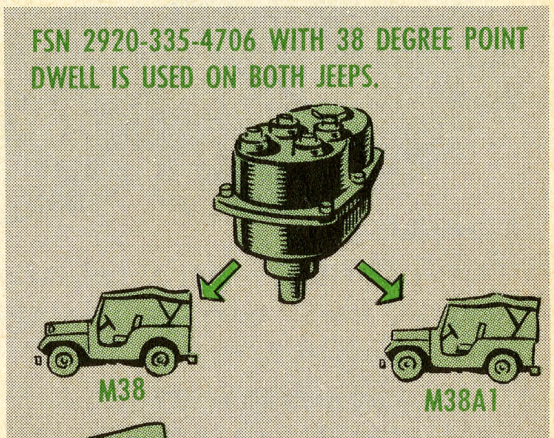
And you can't get a reading of 22 degrees dwell angle with an ignition point gap at the specified twenty thousandths of an inch (.020).

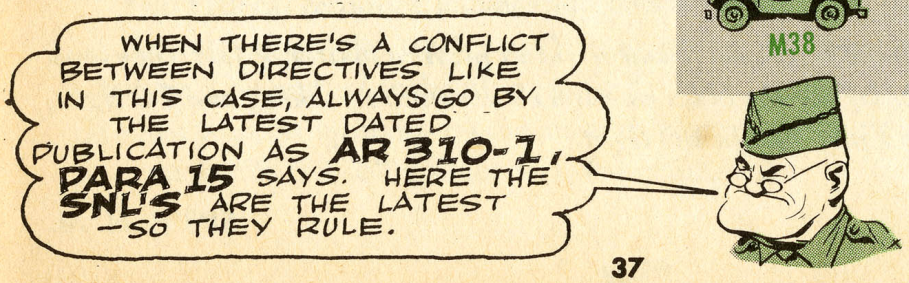
Whaaaaa???

Sgt D. E. B.

Dear Sgt D. E. B.,

Confusin', isn't it? But the SNL's are right. You use the distributor assembly FSN 2920-335-4706 on both ¼-ton vehicles, and you set the point dwell at 38 degrees for both of 'em.





Half-Mast

WHERE YA GOIN'?

Dear Half-Mast,

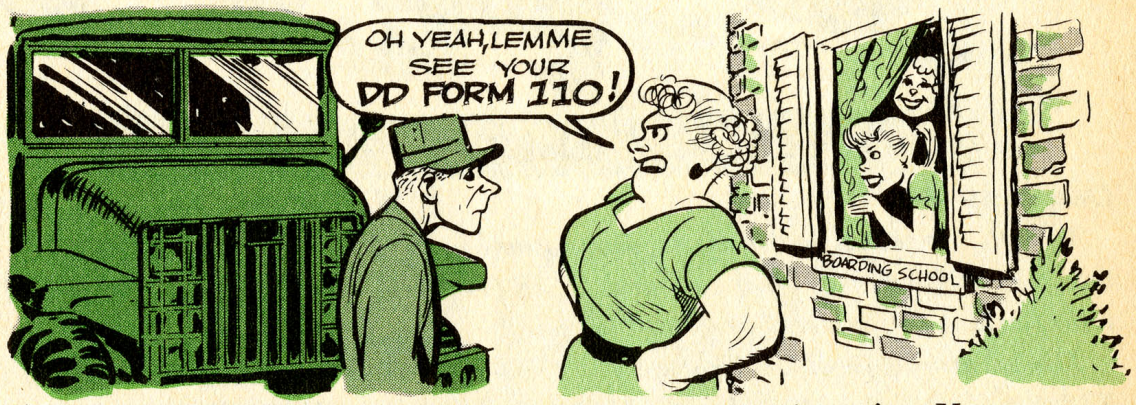
There has been some argument about the DD Form 110. Some say you put your destination on the trip ticket before you leave and others say you can wait until you get to your destination before you fill it in. What's the answer?

SP2 I. W. B.

Dear SP2 I. W. B.,

It's best to put the destination down before you shove off . . . here's why:

If you're stopped by an inspection team, road block, or an MP and questioned, then you could show him the trip ticket and it would explain why you were in that location and where you were going.



In fact, a DD Form 110 should always show where you're going. You put your destination down before you start, and after you get there you put down the time you arrived, speedometer reading, and the miles you traveled. *Half-Mast*

ALL LIT UP

Dear Half-Mast,

Ord 7 SNL G749 (Apr 55) says that Light, blackout marker, parking and signal assy (Ord Stock No. G749-7061169) is to be exhausted to light, FSN 2520-772-3899 (G244).

When we got this new light, we found it didn't fit. As a matter of fact, they look nothing like the older light—the older one is a combination parking and BO light, whereas the new one's just a plain BO light.

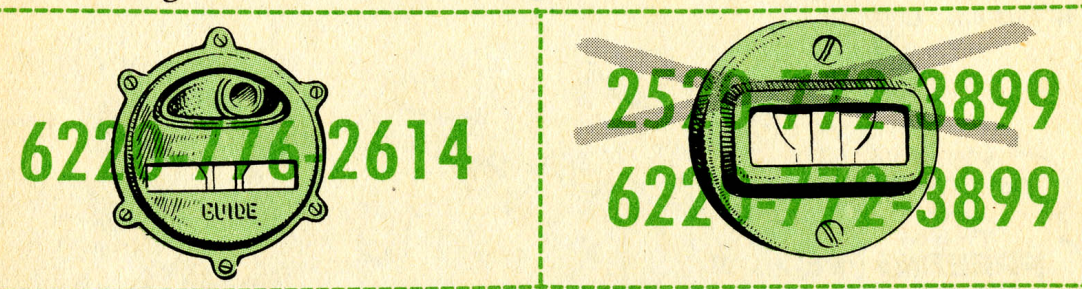
How'd we goof?

SP3 R. H. M.

Dear SP3 R. H. M.,

By using an Ord 7 which has been superseded. The new Ord 7 SNL G749 is dated April 1957 and fixes up this little misprint.

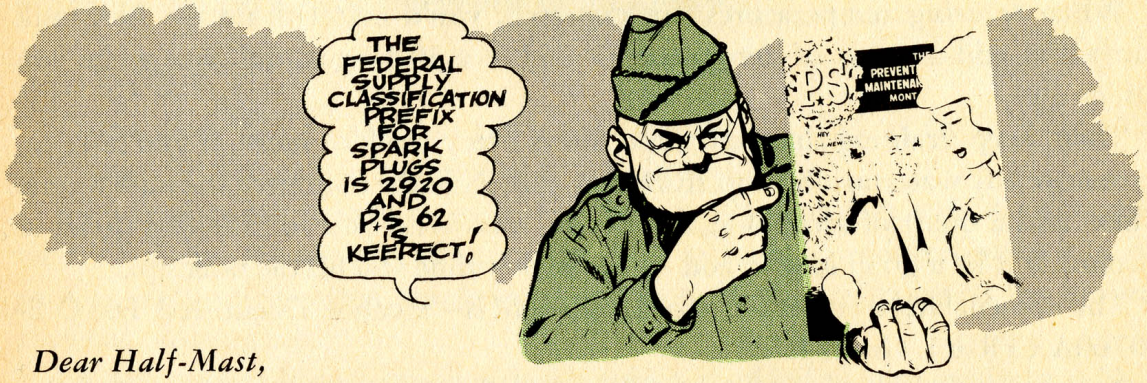
This new Ord 7 authorizes Light 6220-776-2614, which'll fit nice and cozy-like. If you've ordered a number of these 2520-772-3899 lights, you can hand them back in and get the 6220-776-2614 lights in their place.



The 2520-772-3899 light, by the way, should have this number instead: 6220-772-3899. And, it's to be used on the M46-series tanks, the M8A1 high-speed tractor, the M249 and M250 heavy gun-lifting trucks, and the M38 and M38A1 Jeeps.

Half-Mast

WIDGET DIGIT



Dear Half-Mast,

My Ord 7 SNL G749 (April 57) gives the code prefix 5935 as the first four digits of the FSN for the hot and cold spark plugs. PS 62, on the other hand, gives the prefix for these plugs as 2920.

Which is right?

PFC R. G. H.

Dear PFC R. G. H.,

The Federal Supply Classification prefix for all spark plugs is 2920.

As you know, the stock numbering system has been and is going through a change. The prefix for the plugs in Ord 7 SNL G749 is an old one—and outdated. It's just been brought up-to-date, and PS 62 gave the latest information on it as you can see in SM 9-1-2920 (Dec 56), for example.

Half-Mast

CURE FOR FREEZING

Dear Half-Mast,

We get most of our gas from drums and have found that there's a lot of water in with it. So, water gets into our vehicles' gas tanks, and we start having trouble when the weather falls below freezing.

What can we do?

Cpl. R. B.

Dear Cpl. R. B.,

When freezing temperatures are expected, you'd better drain the fuel tank sump and add a quart of denatured alcohol to a 30-50-gal fuel tank when you fill 'er up.

Then, keep draining that sump and filters every week or more, if you have to, to remove any water-alcohol moisture that gathers in the bottom of the tank filters. Then, add a quart of alcohol again. By the way, after you add the first quart of alcohol, it'd be a good idea to add ½ pint every time you fill the tank up.

The nomenclature you'll use to order alcohol is—Alcohol, Denatured, Fed O-E-00760A (TR-ir), Grade III.

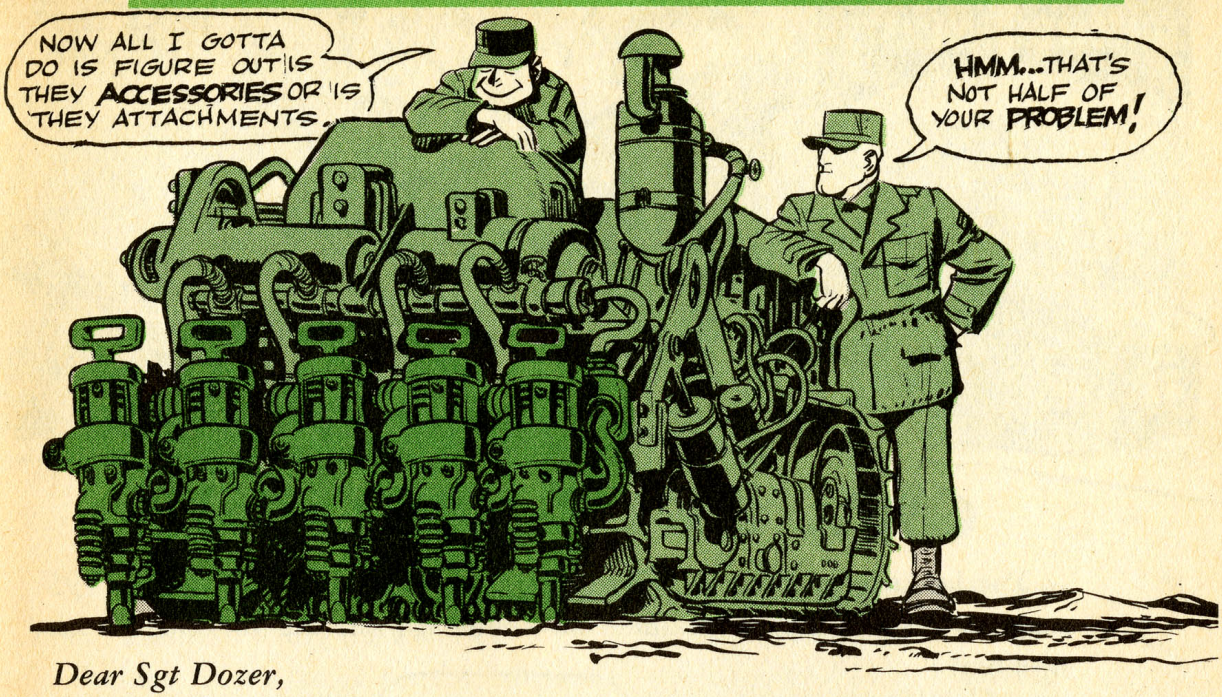
Now, you can get this stuff in 1-gal bottles, 1-pt bottles or 5-gal cans. Just figure out how much you're gonna need to take care of all your vehicles, put down in what size container you want that alcohol to come and use these stock numbers—

1-GAL BOTTLE	FSN 6810-201-0905
1-PT BOTTLE	FSN 6810-201-0906
5-GAL CAN	FSN 6810-201-0907

The Chemical boys have the responsibility for this alcohol. If you need more info on cold weather operation, dig up a copy of TM 9-2855. It covers the subject pretty well.

Half-Mast

ACCESSORIES VS. ATTACHMENTS



Dear Sgt Dozer,

I've got a question that I've heard kicked around in equipment pools longer than I can remember. I'm not trying to throw you a curve, Sarge, but what's the difference between an accessory and an attachment?

Sgt R. E.

Dear Sgt R. E.,

That's more like a high, fast pitch than a curve, but I'm set for it. Here's the difference between an accessory and an attachment:

An accessory is any item or gadget on your equipment that adds to the equipment's functioning or to its effectiveness. This includes . . . winterization kits, oil coolers, vacuum-operated crankcase-ventilation filters, and boosters for brakes, clutches, steering, etc.

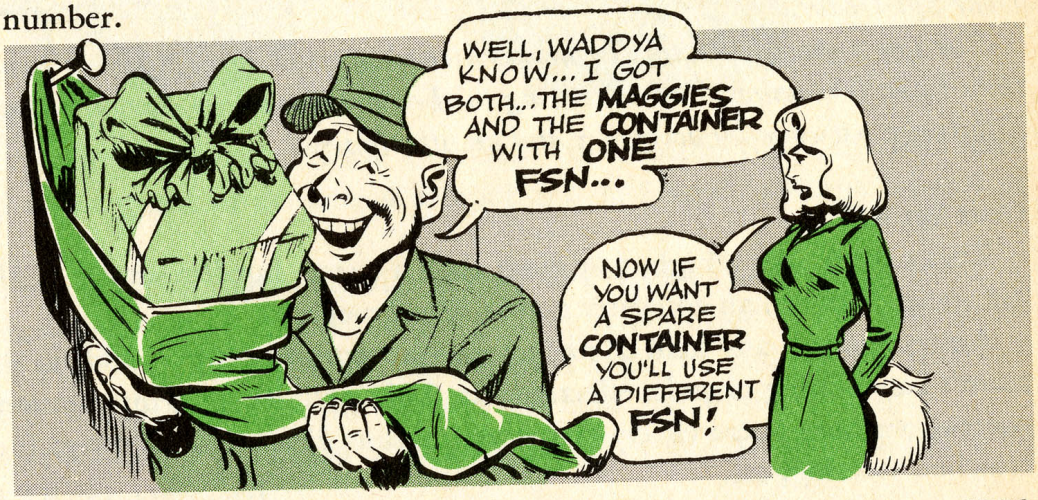
An attachment is an item or a device which is added to your equipment for a specific purpose or use, but is not part of the basic piece of equipment. Attachments usually get their operating power from the rig to which they're attached. In this group are . . . shovel fronts, angle dozers, scarifiers, scrapers, PCU's, etc.

Maintenance wise—you service the accessories as part of the regular daily, weekly, or monthly PM on your rig like the TM, TB, or LO says. Attachments can also be maintained and serviced in the same way as long as they're attached to or joined to the equipment. There's space on page 1 of DA Form 464, "Work Sheet for PM and TI of Engineer Equipment," to list the attachments being serviced. When an attachment is not joined to or made a part of a rig (like when it's in storage or not being used)—then it's maintained as a separate piece of equipment.

Sgt Dozer

ONE GETS YOU TWO

The latest word for you Nike-Ajax guys is that your 5780 and 5795 magnetrons and their containers now come to your site under one stock number.



That's right. FSN 5960-561-0410 gets you Electron Tube, type 5780, w/container, Metal, Reusable. That number used to be for the tube only.

Same goes for FSN 5960-247-2462. That number used to be for the 5795 magnetron only. Now . . . it gets you Electron Tube, type 5795 w/container, Metal, Reusable.

The rules of the game say each spare maggie has to have a container. If you're short, remember that FSN 5960-626-8468 brings you a container for the 5780 maggie . . . and FSN 5960-626-8469 is container number for the 5795 maggie.

Then have each container and maggie show up as combination items.

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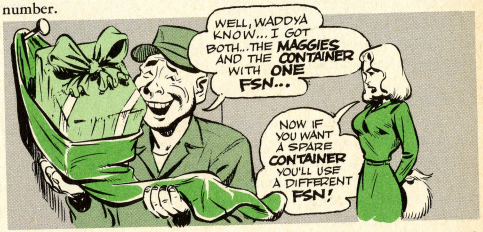

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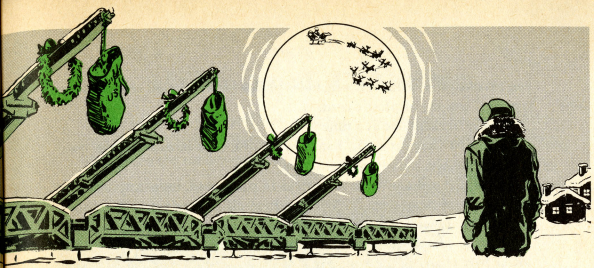


POINTED QUESTION

That sharp point on the blast shield of the M27 Corporal launcher doesn't help in firing the missile.

Besides . . . it's tough on the brogans if you have to do any climbing around the launcher.

SO, THE THING TO DO IS TO HAVE IT ROUNDED WITH A GRINDER. THE BLAST WILL BE DEFLECTED OK WITHOUT THE POINT.

Rocket Fuel Handlers . . .

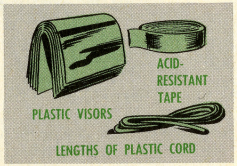
CLOSE THAT GAP!

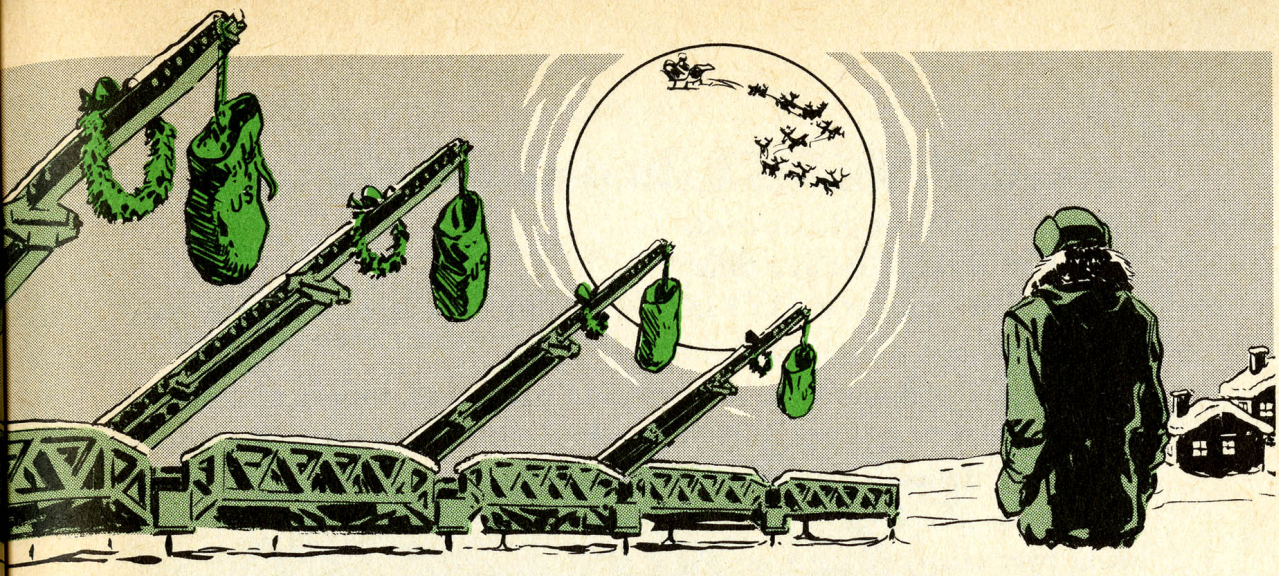
Got "gaposis" of the hood?

Bendin' over a hot missile with fumes swirlin' up into your nose?

So it's time for the cure: Replace the visor and tape it down.

You'll find it in a new kit designed for use with fuel handlers' hoods. The kit contains everything





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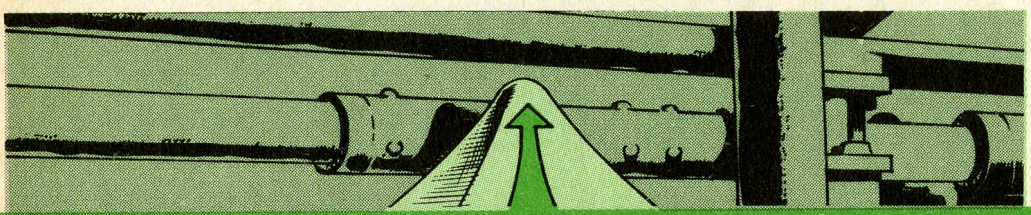

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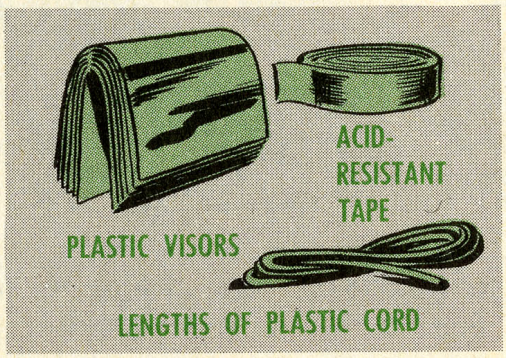


you need for ten hoods. This includes plastic visors, special acid-resistant tape and lengths of plastic cord.

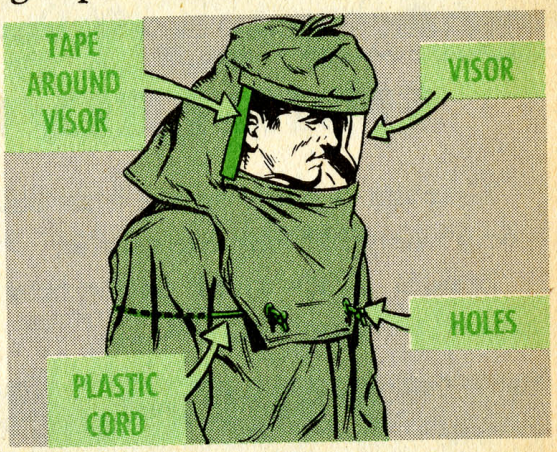
Lookin' at them one at a time:

The extra visors come in handy when the ones already on the hood become cracked, cloudy or discolored.

The tape'll make sure the visor stays in place, and, more important, it gives a liquid-proof seal. Stick it on along all four edges of the visor—and on the underside of the retaining flaps.

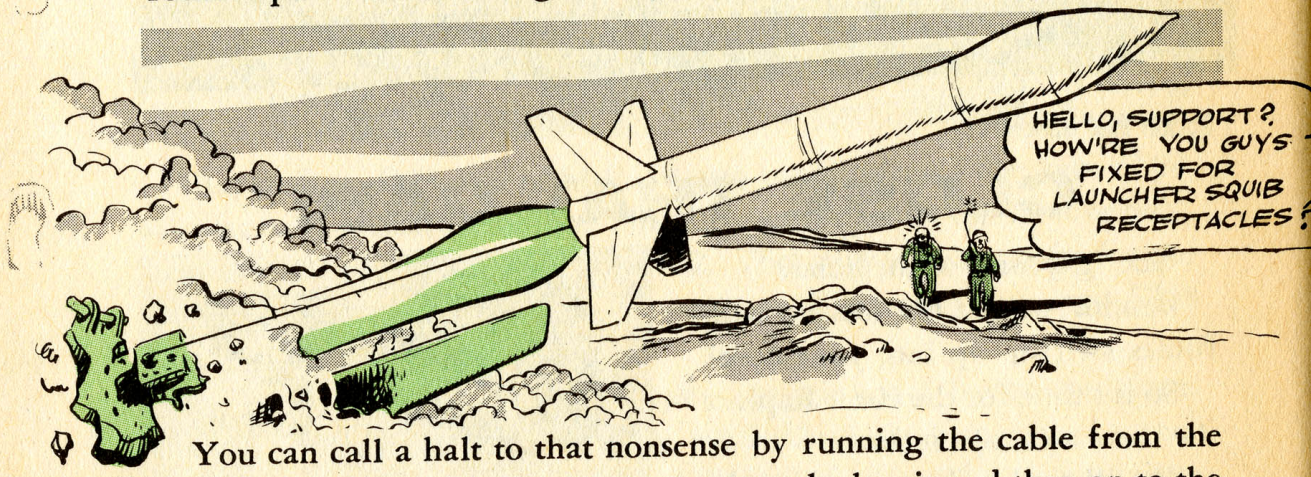
And the plastic cord keeps the lower part (flap) of the hood snug against the chest. Punch a hole in each corner near the hem of the hood flap and slip a cord, knotted at each end, through each side. Then tie 'em together behind your back to make a tight fit.

FSN 8415-285-5052 gets the kit. It's QM.



CABLE CUTTER

Ever have the launcher squib receptacle get all beat up instead of the rocket squib cable breaking when you pop off your Honest John Rocket?



You can call a halt to that nonsense by running the cable from the rocket motor to the bumperette on your truck chassis and then on to the receptacle on the launching beam. By wrapping the cable around the bumperette a turn or two, it'll snap like it's supposed to.

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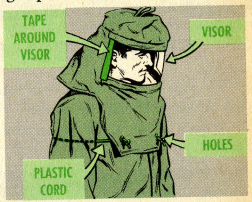

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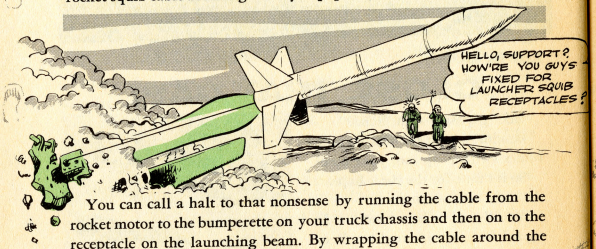

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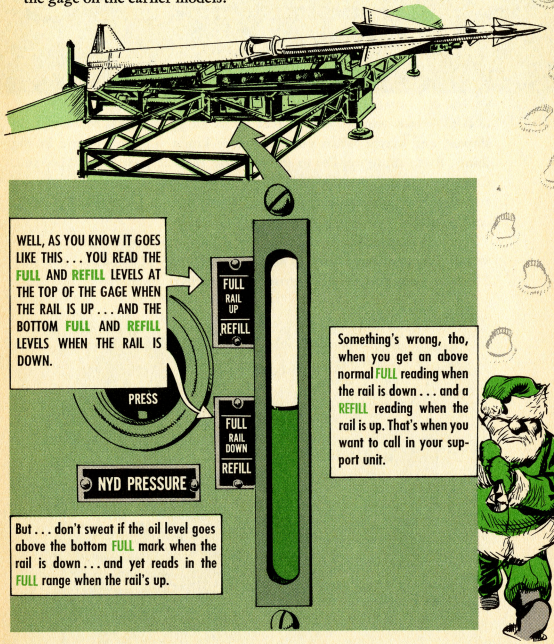
UPs and DOWNs

You know the gage you look at to see about the oil level in the Nike-Ajax launcher's hydraulic power pack? How are you making out reading the gage on the earlier models?



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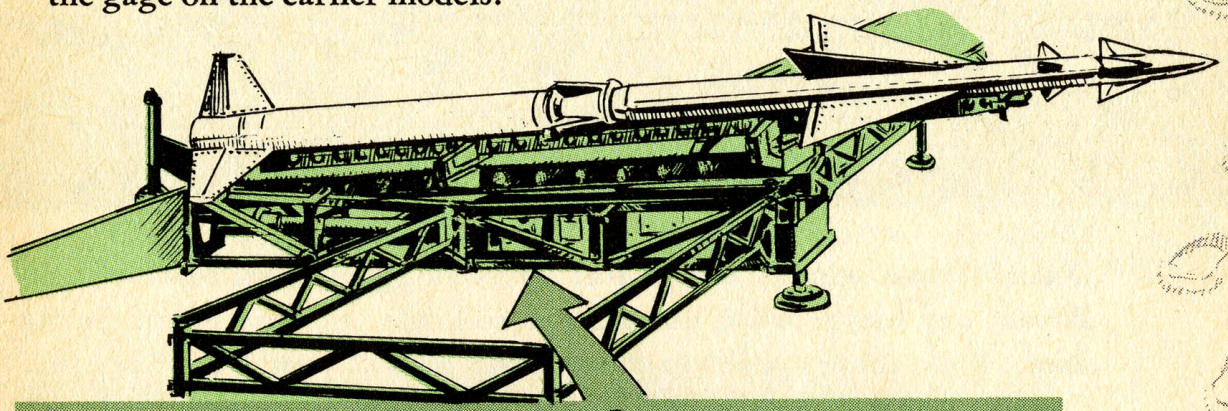
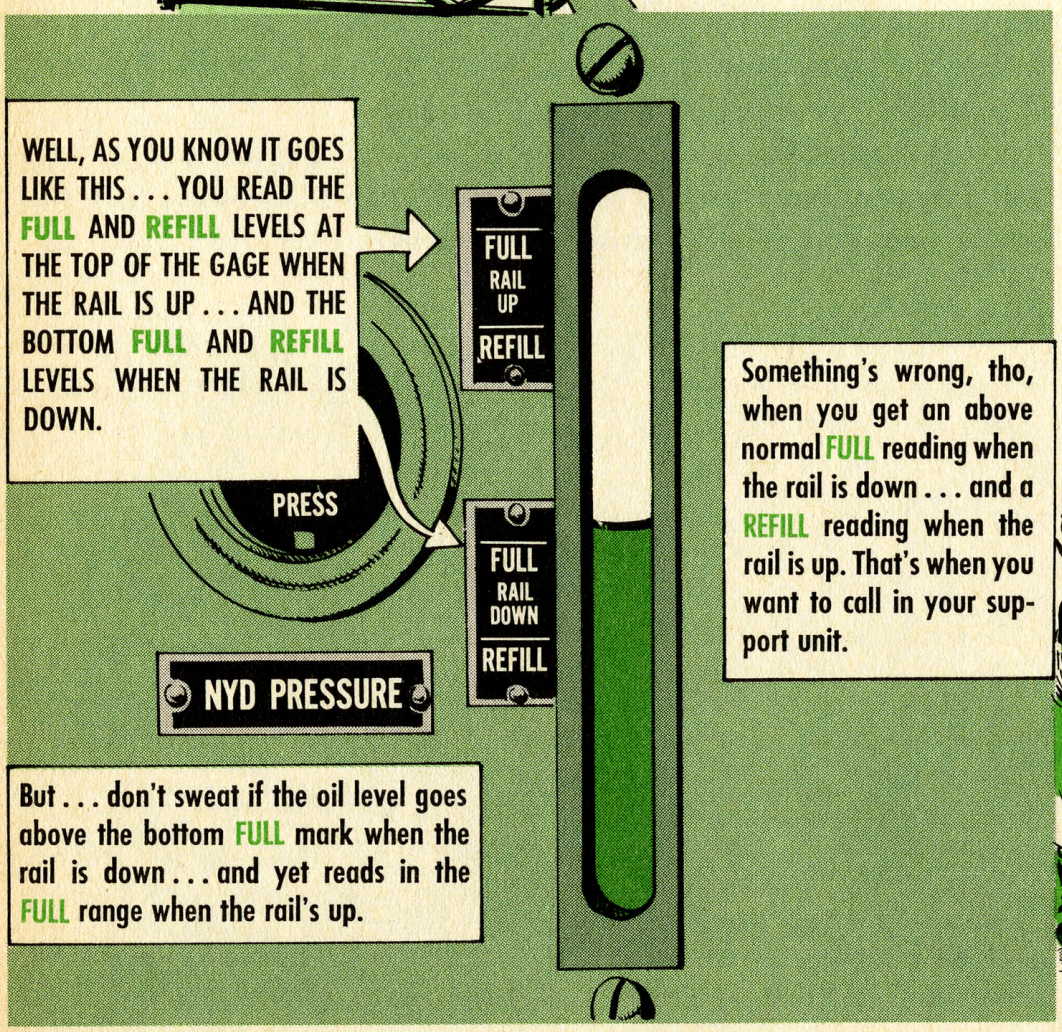
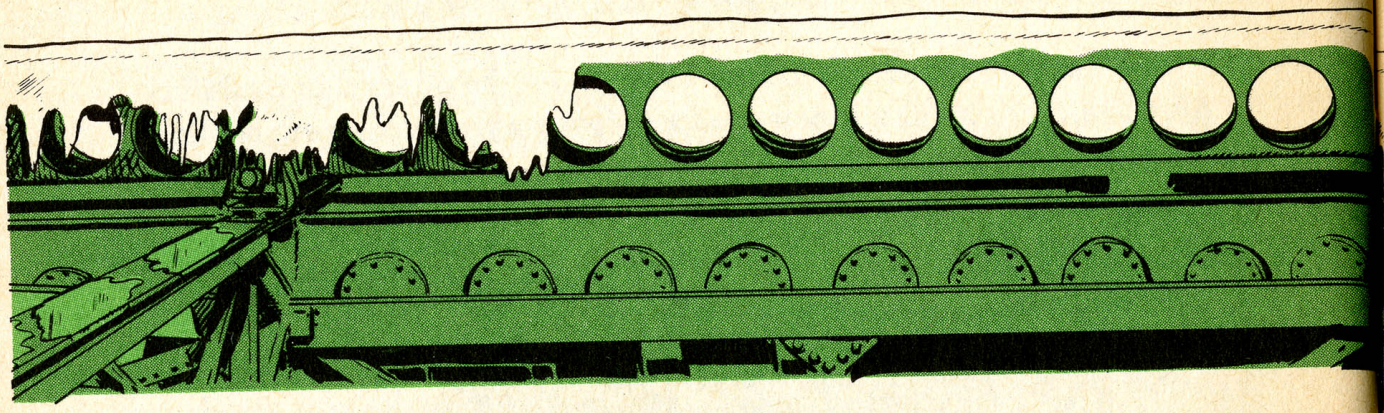




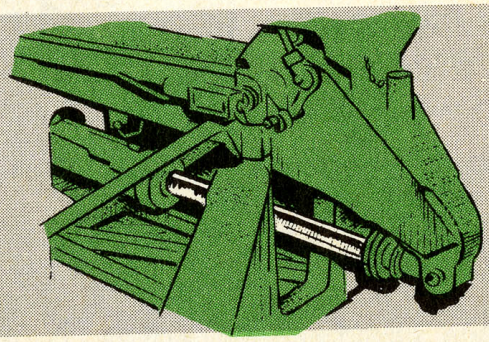
RALLY 'ROUND



Brr! Comes winter, and ya feel kinda sluggish — you move a little slower, and maybe when you do, you're kinda stiff and brittle in the joints. Same thing applies to the erecting rails at your Nike-Ajax site. Comes ole Jack Frost, and they're apt to freeze up on you—or act in the stiff peculiar way you can expect of most moving mechanical parts in cold weather.

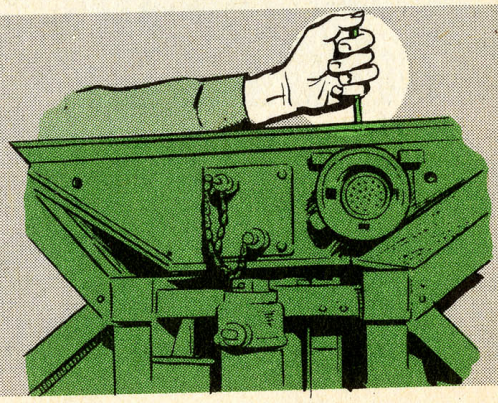
To keep your rails workin' like they should and to keep 'em from developin' a pop-up condition in cold weather, check LO 9-5016-1 (16 July 58) and then run your ice-coated eyeballs over these tips:

Before trying to raise your rails, put a light coat of hydraulic oil on the erecting arm piston.

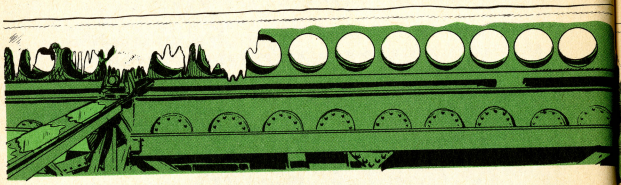


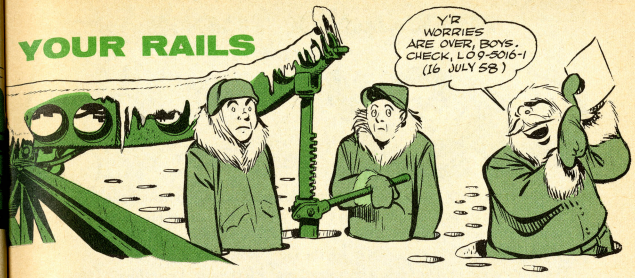
Put a few drops of the stuff on all your hydraulic connections.

Exercise all down limit switches by hand 10 times before trying to work your launchers.



RALLY 'ROUND YOUR RAILS





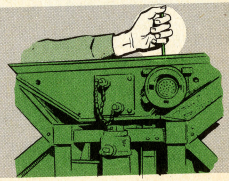
Brr! Comes winter, and ya feel kinda sluggish — you move a little slower, and maybe when you do, you're kinda stiff and brittle in the joints. Same thing applies to the erecting rails at your Nike-Ajax site. Comes ole Jack Frost, and they're apt to freeze up on you—or act in the stiff peculiar way you can expect of most moving mechanical parts in cold weather.

To keep your rails workin' like they should and to keep 'em from developin' a pop-up condition in cold weather, check LO 9-5016-1 (16 July 58) and then run your ice-coated eyeballs over these tips:

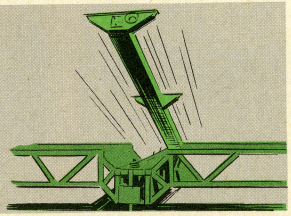
Before trying to raise your rails, put a light coat of hydraulic oil on the erecting arm piston.

Put a few drops of the stuff on all your hydraulic connections.

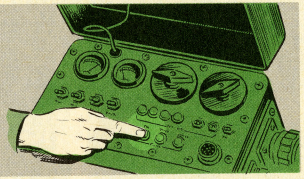
Exercise all down limit switches by hand 10 times before trying to work your launchers.



Run the hydraulic pack for at least three minutes with the bypass valve open. Raise the launcher without the missile at least twice. Open and close the elevator doors at least once before raising the elevator, and make sure the doors are fully open before raising it.



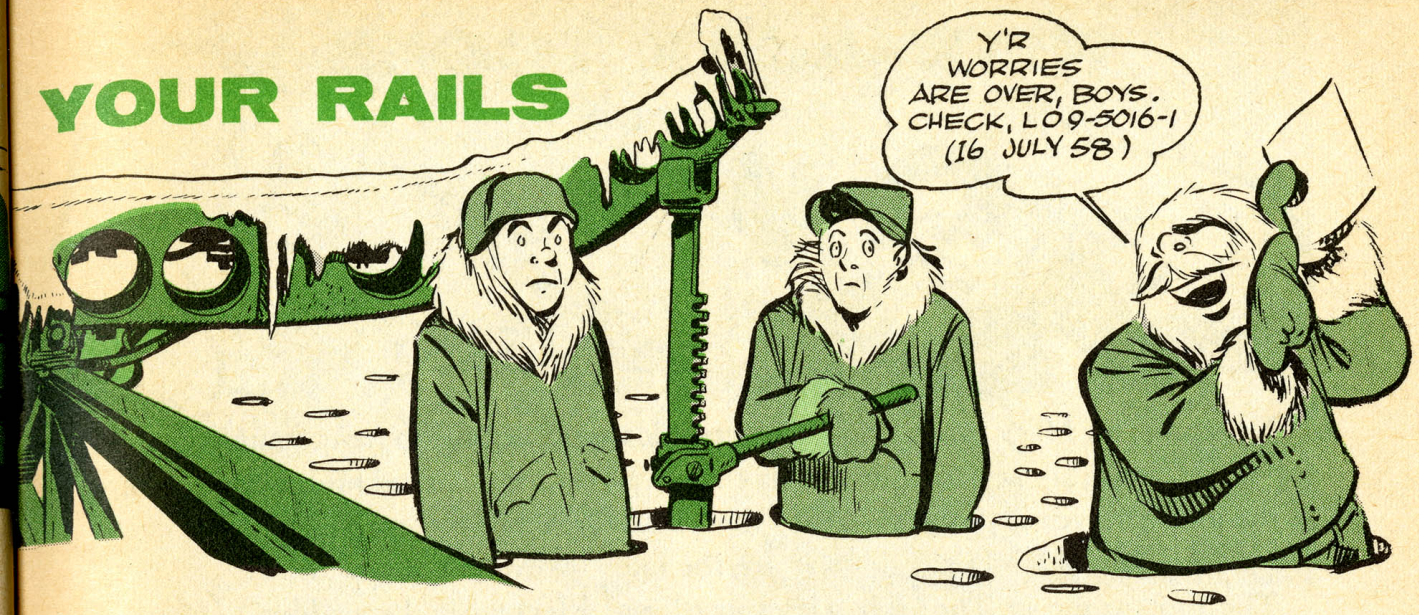
After you've made these cold weather checks, you can run weekly LOP checks on your ready rounds. Run a command check in the external position and the regular weekly missile check in the internal position.



CHECK YOUR GENERATOR

Got a 45-KW generator (Stewart-Stevenson or Cummins)? If so, hoist a signal for your field maintenance outfit. You'll want them to check to see if it has the proper inductor. MWO ENG 14 has the full scoop on this. It's an urgent deal.

YOUR RAILS



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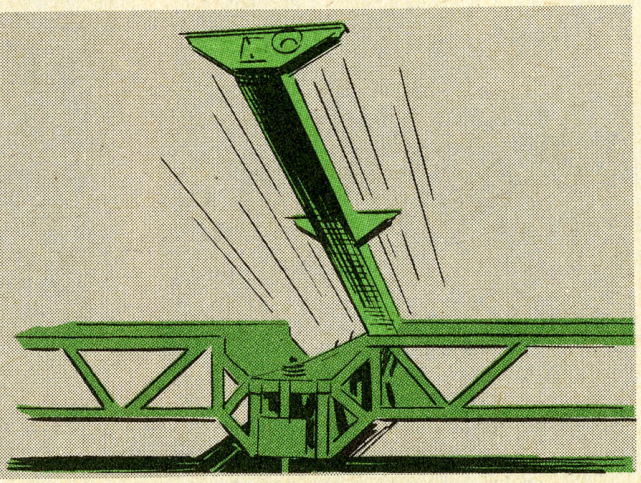

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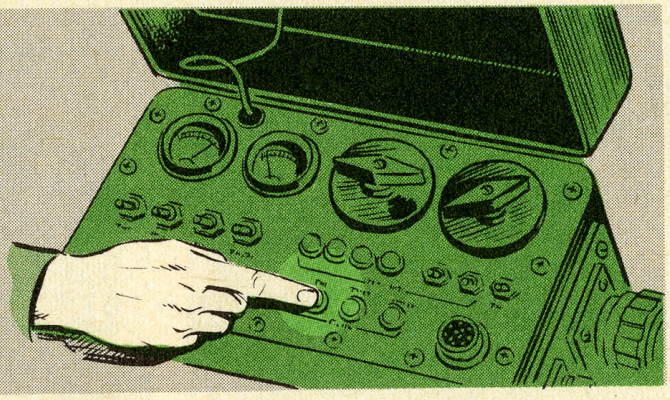

CHECK YOUR GENERATOR

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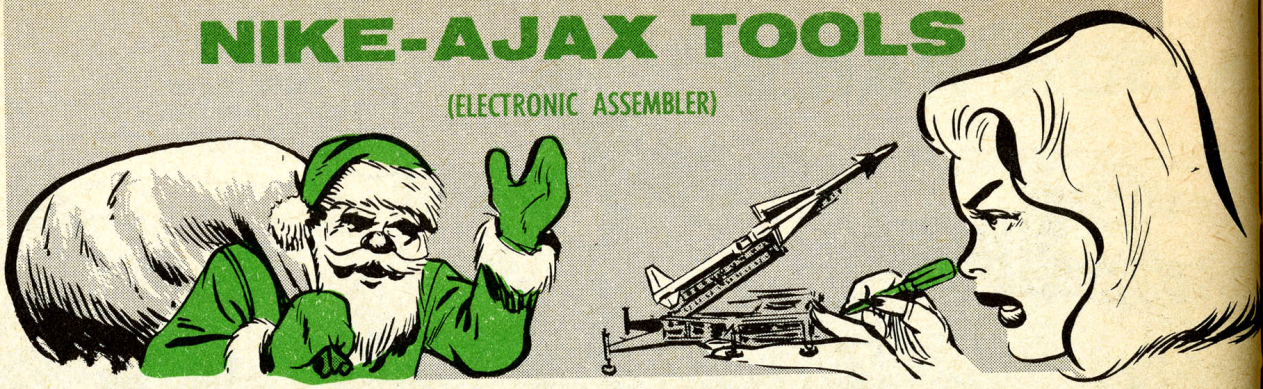
NIKE-AJAX TOOLS

(ELECTRONIC ASSEMBLER)

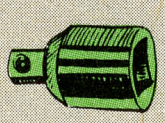


You have an MOS 223? You an electronic assembler? You hang your fatigue cap in the assembly area of a Nike-Ajax site? Well then . . . read on for a look-see at the tools you're supposed to have. They're all Ordnance except the ones marked otherwise. The names and numbers are the latest word on these tools.

The tools come in **Tool Kit, Organizational Electronic Assembler, Guided Missile (Nike), FSN 5180-545-8643, SM 9-4-5180, J10-45.**

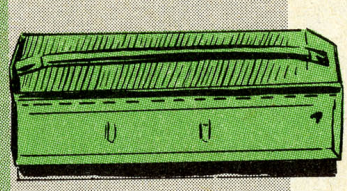
You're allowed one kit.

ADAPTER, SOCKET WRENCH: ¼ in male sq plug, ⅜ in female sq-socket (Fed Spec GGG-W-641, Type XI, Class I).



1 Auth **FSN 5120-227-8095**

BOX, TOOL: S, loose tray, approx 7 5/16 x 8½ x 21 in (ORD TAC dwg No 07573-Y).

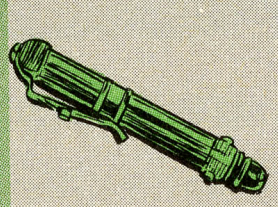


1 Auth **FSN 5140-357-5483**

FINGER, MECHANICAL: flex type, 15 in reach (ORD dwg No 6296258).

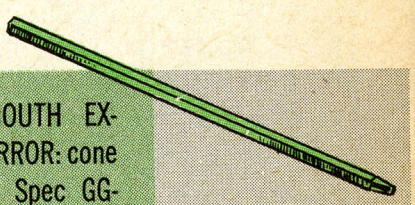
1 Auth **FSN 5120-629-6258**

FLASHLIGHT: electric, hand, fountain pen type, with lamp, without batteries; Burgess Battery Co No. 92 or equal.



1 Auth (SIG) **FSN 6230-171-3362**

HANDLE, MOUTH EXAMINING MIRROR: cone socket (Fed Spec GG-M-431).



1 Auth (MED) **FSN 6520-541-9350**

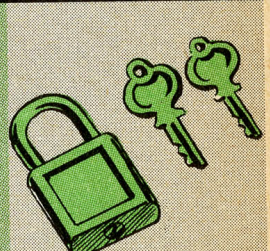
KNIFE, POCKET: 2 cutting blades, 1⅝ in lg & 2⅜ in lg.

1 Auth (QM) **FSN 7340-163-2543**

MIRROR, MOUTH EXAMINING: magnifying glass, cone socket, w/o hdl (Fed Spec GG-M-431, Type II, Size I).

1 Auth (MED) **FSN 6520-541-9005**

PADLOCK: pin tumbler mech, br case, cd fin shackle, 1¾ in w, 1 7/16 in h, keyed individually, w/o clevis, w/2 keys, (Fed Spec FF-P-101, Type EPB).

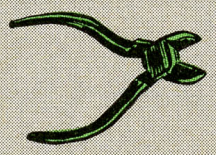


1 Auth (ENG) **FSN 5340-205-5517**

PLIERS, DIAGONAL CUTTING: 4½ in lg (Fed Spec GGG-P-471a, Type H, Class I, Style 2).

1 Auth FSN 5110-240-6209

PLIERS, DIAGONAL CUTTING: 6 in lg (Fed Spec GGG-P-471a, Type H, Class I, Style 2).

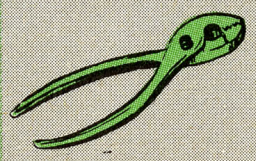


1 Auth FSN 5110-239-8253

PLIERS: side cutt, lg rd nose w/cutter, 6 in lg (Fed Spec GGG-P-471, Type P).

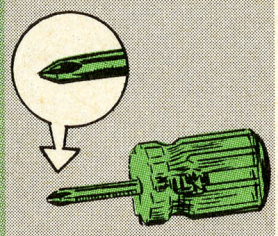
1 Auth FSN 5120-247-5177

PLIERS, SLIP JOINT: stght nose, comb, w/ cutter, 8 in nom size (Fed Spec GGG-P-471, Type F, Class I, Style I).



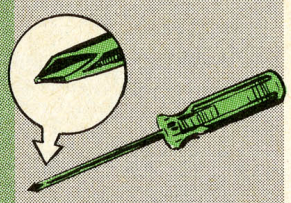
1 Auth FSN 5120-223-7397

SCREWDRIVER, CROSS TIP: Phillips type, close qtr, slow burning plastic hdl, 1½ in blade, No 2 tip (Fed Spec GGG-S-121, Type VI, Class I, Style I).



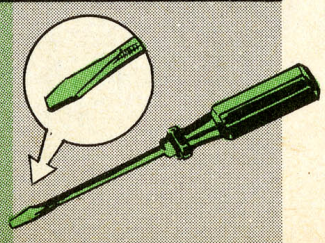
1 Auth FSN 5120-227-7293

SCREWDRIVER, CROSS TIP: Reed & Prince type tip, plastic hdl, ¼ in tip dia, 4 in lg blade (Fed Spec GGG-S-121, Type VI, Class 2, Style I).



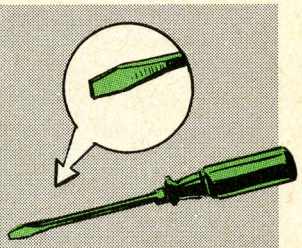
1 Auth FSN 5120-237-8173

SCREWDRIVER, FLAT TIP: plastic hdl, 3/16 in w tip, 5½ in blade (Fed Spec GGG-S-121, Type I, Class I, Design A, Style 2).



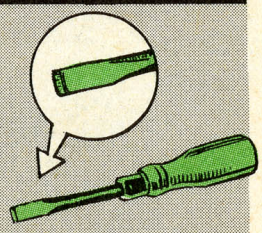
1 Auth FSN 5120-596-1185

SCREWDRIVER, FLAT TIP: plastic hdl, w/bolster & wrench grip, ¼ in tip, 4 in blade (Fed Spec GGG-S-121c, Type I, Class 5, Style I, Design B, Shape B).



1 Auth FSN 5120-278-1282

SCREWDRIVER, FLAT TIP: wd hdl, stght sided tip, 3/16 in tip, 2½ in lg blade (Fed Spec GGG-S-121, Type I, Class 2, Design A, Style 2).



1 Auth FSN 5120-236-2100

SCREWDRIVER SET, RECESSED SCREW: Phillips type, 4 comm & 2 offset screwdrivers (Fed Spec GGG-S-121).

1 Auth FSN 5120-357-7174

SOCKET, SOCKET WRENCH: deep lg, dble-hex, 3/8 in sq-drive, 3/8 in opng (Fed Spec GGG-W-641, Type I, Class 2).

1 Auth FSN 5120-277-1463

SOCKET, SOCKET WRENCH: set or cap screw, (hollow-hd), 7/32 in hex, ¼ in sq-drive, 7/16 in set screw, 5/16 in cap screw (J H Williams & Co No NAM-607, or equal).

1 Auth FSN 5120-390-7791

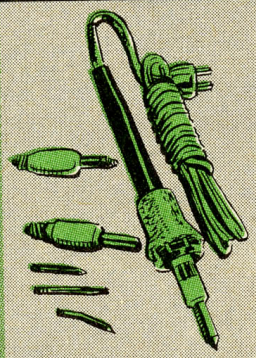
SOCKET, SOCKET WRENCH: univ-jt type, 3/8 in sq-drive, 6 pt, 5/16 in opng (Snap-On Tools Corp No FS10A, or equal).

1 Auth — FSN 5120-517-8102

SOCKET, SOCKET WRENCH: univ-jt type, 3/8 in sq-drive, 12 pt, 1/2 in opng (Fed Spec GGG-W-64 lb, Type I, Class 3).

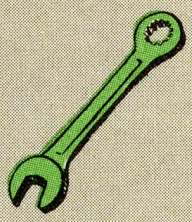
1 Auth — FSN 5120-242-3355

SOLDERING IRON, ELECTRIC: 37 1/2 w, 120 v, pencil type, w/py & chisel tips, thd-in-unit & 1 ea offset pencil & chisel tiplet (Ungar Electric Tools Inc No 776, or equal).



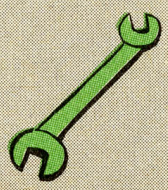
1 Auth — FSN 3432-346-7538

WRENCH, BOX AND OPEN END COMBINATION: 3/8 in hex or 12 pt opng, 15 deg angle of open end, 4 3/16 in nom lg overall (Fed Spec GGG-W-636a, Type III).



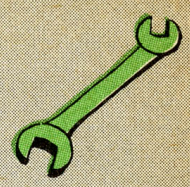
1 Auth — FSN 5120-228-9504

WRENCH, OPEN END, FIXED: dble open end, 15 deg angle, spear-hd, alloy-S, 1/2 & 3/16 in openings, 17/64 in thk hd, 5 1/2 in lg over-all (Fed Spec GGG-W-636a, Type IV, Style 2).



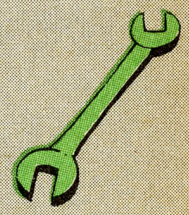
1 Auth — FSN 5120-187-7124

WRENCH, OPEN END, FIXED: dble open end, 15 deg angle, spear-hd, alloy-S, 7/16 & 5/8 in openings, 17/64 in thk hd, 6 in lg overall (Fed Spec GGG-W-636a, Type IV).



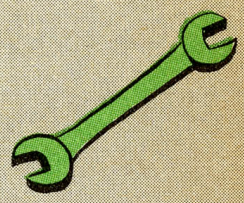
1 Auth — FSN 5120-187-7126

WRENCH, OPEN END, FIXED: dble open end, 15 deg angle, spear-hd, alloy-S, 5/8 & 11/16 in openings, 21/64 in thk hd, 7 in lg over-all (Fed Spec GGG-W-636, Type IV, Style 2).



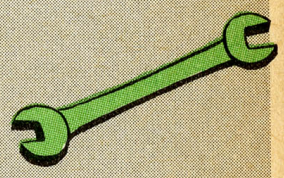
1 Auth — FSN 5120-277-8301

WRENCH, OPEN END, FIXED: dble open end, 15 deg angle, alloy-S, 11/16 & 3/4 in openings, (Fed Spec GGG-W-636, Type IV, Style 2).



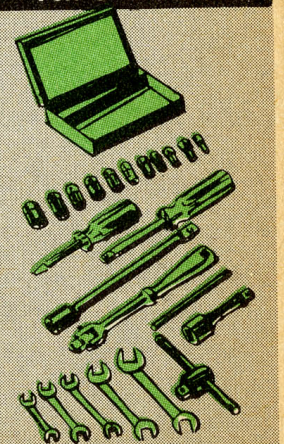
1 Auth — FSN 5120-449-8133

WRENCH, OPEN END, FIXED: dble open end, 15 deg angle, 3/4 & 7/8 in openings, 3/8 in thk hd, 8 3/8 in lg overall (Fed Spec GGG-W-636, Type IV).



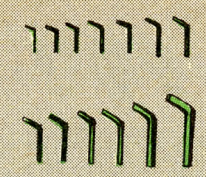
1 Auth — FSN 5120-240-5609

WRENCH SET, SOCKET: 1/4 in sq-drive, 6, 8, & 12 pt, w/handles, elec wrenches & pocket screwdrivers, 3/16 to 15/32 in elec, 3/16 to 9/32 in 6 pt., 1/4 to 3/8 in 8 pt, 5/16 to 7/16 in 12 pt openings, 22 pc in bx (Bonney Forge & Tool Works No V-52, or equal).



1 Auth — FSN 5180-505-5923

WRENCH SET, SOCKET HEAD SCREW: L-type handles, hex type, 0.050 in to 5/16 in w across flats, w/ro, 13 wrenches in set (Fed Spec GGG-W-652, Type I, Class A).



1 Auth — FSN 5120-204-0972

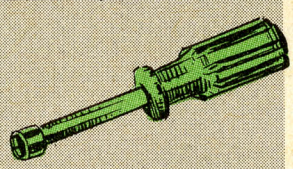
WRENCH, SOCKET, SINGLE HEAD: screwdriver type, 6 pt, 1/4 in opng (Vaco Products Co No S8, or equal).

1 Auth — FSN 5120-357-8859

WRENCH, SOCKET: SINGLE HEAD: screwdriver type, 6 pt, 11/32 in opng (Fed Spec GGG-W-641b, Type III, Class 3).

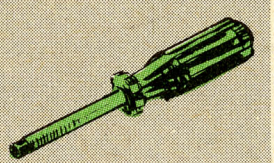
1 Auth — FSN 5120-293-0796

WRENCH, SOCKET, SINGLE HEAD: screwdriver type, 6 pt, 3/8 in opng (Fed Spec GGG-W-641b, Type III, Class 3).



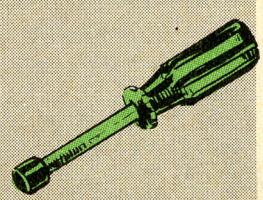
1 Auth — FSN 5120-596-1263

WRENCH, SOCKET: single-socket, spinner type, 3/16 in hex socket, 5 in nom lg over-all (Fed Spec GGG-W-641, Type III, Class 3).



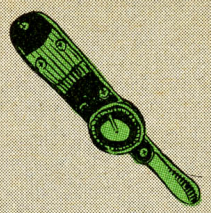
1 Auth — FSN 5120-224-2599

WRENCH, SOCKET: single-socket, spinner type, hex shape, 5/16 in opng, 5 3/4 in nom lg over-all (Fed Spec GGG-W-641b, Type III, Class 3).



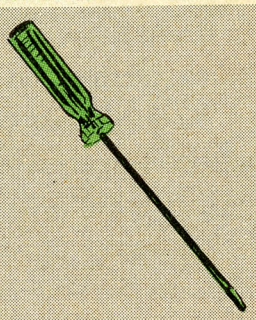
1 Auth — FSN 5120-224-2596

WRENCH, TORQUE: rigid frame L-hdl style, dial indicating tor mech, w/visual indicating mech, 3/8 in male sq-drive, 150 in-lb cap (Fed Spec GGG-W-686, Type II, Style A, Size 0).



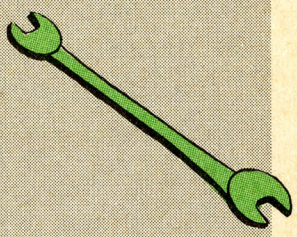
1 Auth — FSN 5120-230-6380

SCREWDRIVER, FLAT TIP: w/additional insulation covering on blade, plastic hdl, stght side 3/16 w tip, 8 in lg blade: in accordance with Fed Spec GGG-S-121, Type I, Class 1, Design A, Style 2.



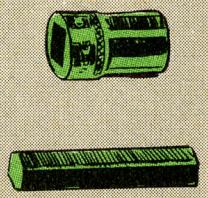
1 Auth — FSN 5120-180-0708

WRENCH, OPEN END, FIXED: double open end, 15 degree angle, spear head, alloy-S, 3/8 and 7/16 in openings; in accordance with Fed Spec GGG-W-636, Type IV.



1 Auth — FSN 5120-277-2342

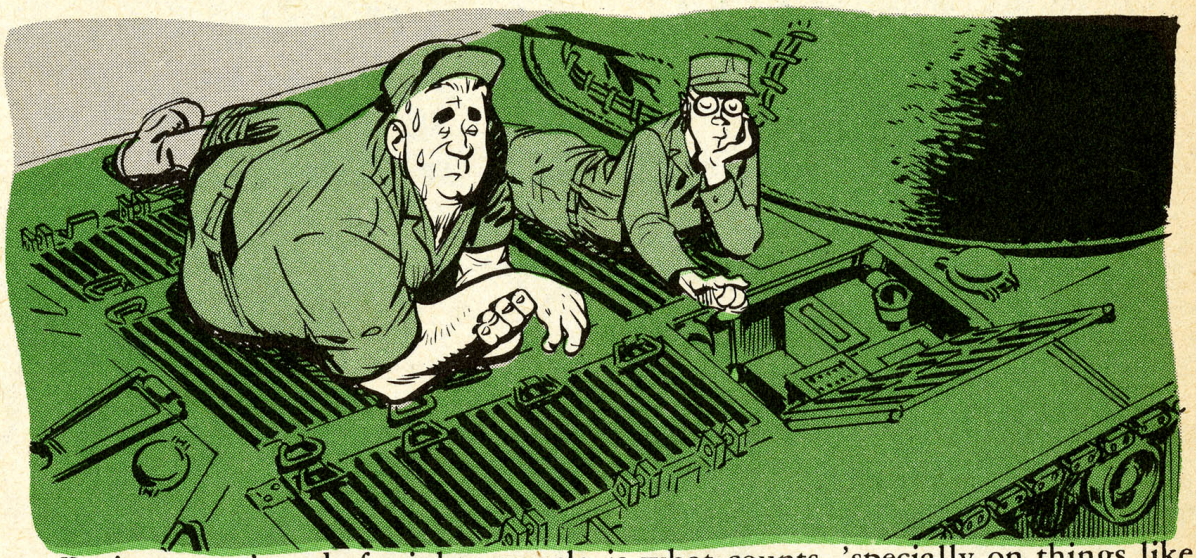
SOCKET WRENCH ATTACHMENT, SOCKET HEAD SCREW: 1/4 in nom hex plug end, 3/8 in nom sq-drive, removable blade w/set screw; Snap-on-Tools Corp No FA8 or equal.



1 Auth — FSN 5120-596-8508

Starting Li'l Joe—

STEADY AS YOU GO



Brain power 'stead of mighty muscle is what counts, 'specially on things like hand starting the Li'l Joe in your tank.

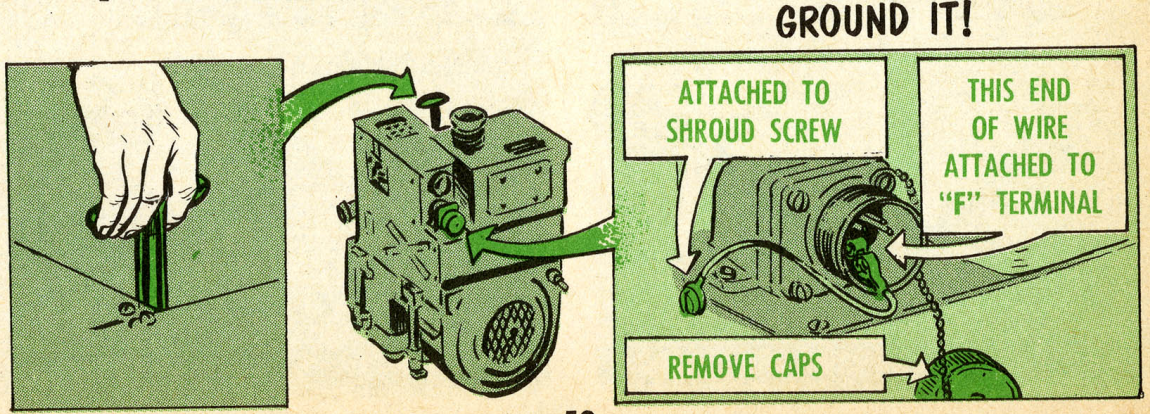
A coupla fast hard jerks on the hand starter handle, and you'll be wondering why you're getting no place fast. The answer's simple: Too hard and heavy a pull is more'n likely to break the latch and retaining pin on your starter.

To save yourself some cussin', take it easy next time you use the hand starter. Pull on the starter cable real slow and steady, instead o' trying to spin the engine like an outboard. Two turns of the starter pulley will do the trick.

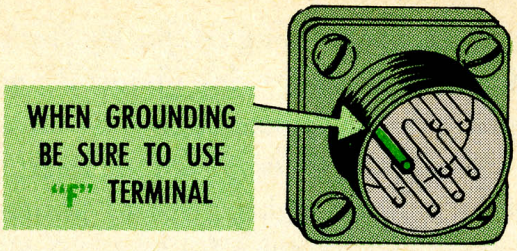
'Course, if you run into any difficulty when you give the cable a slow, steady pull, it may be that the cable won't rewind because the latch is wedged against the pin on the pulley assembly.

To release the latch, pull the cable slightly and rotate the latch knob counterclockwise (as you face the pulley). This'll rotate the latch counterclockwise, which'll free the pin and let the pulley rewind.

Sometimes, on early models, the pulley spring may drag on the inner shield. A little powdered graphite on the spring surfaces'll usually clear this up.



If you have to preload the pulley spring, here's how to do the job . . . but before you start, connect a cable from the electrical connector's F terminal to the engine. This'll ground the magneto and stop an accidental starting.

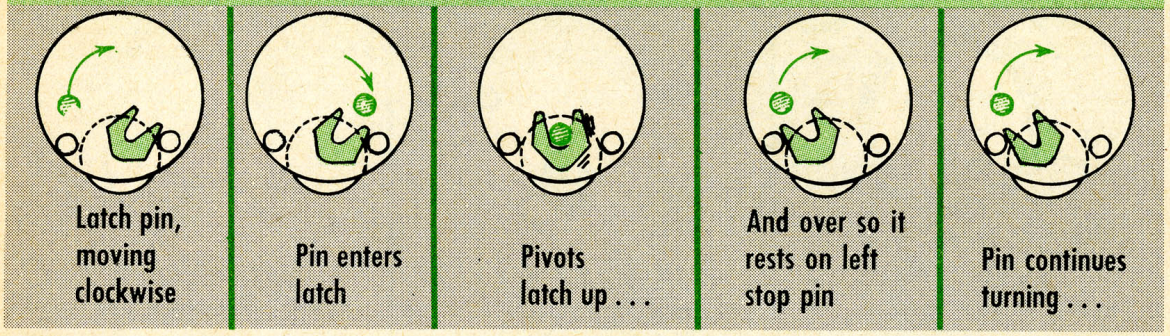


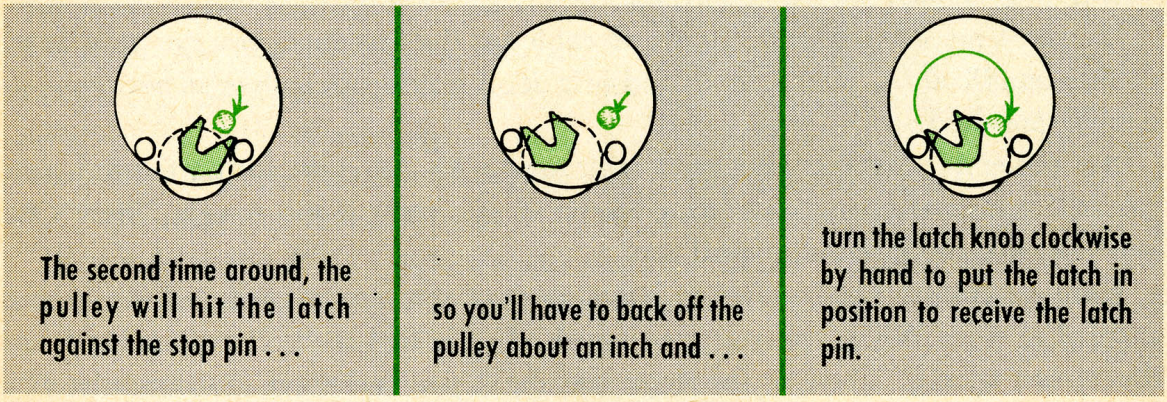
Unscrew the four cap screws on the inspection hole cover and remove it and the screws. You don't have to touch the hub nut at all.

Hook the end of the spring around the dowel on the crankcase front cover assembly, so it rests easy-like.

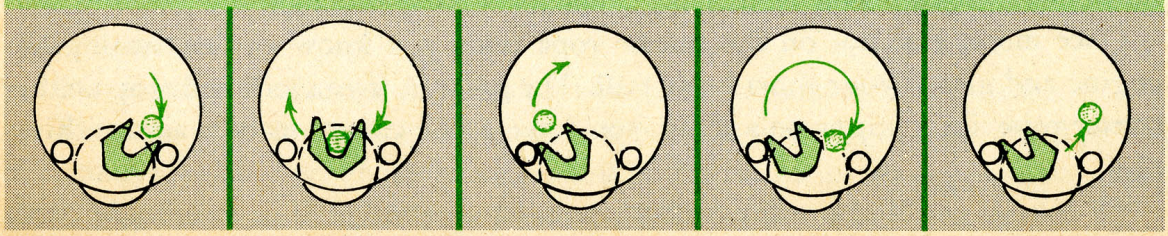
Replace the inspection hole cover and four cap screws.

Insert a $\frac{5}{16}$-in NC 18 bolt in the hole on the pulley and spring retainer assembly, and, holding onto the stud, rotate the assembly clockwise till the latch pin strikes the latch. Like this:



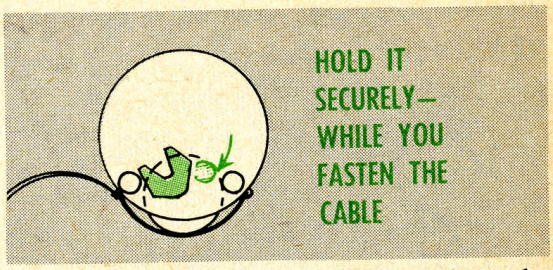


The latch is made so's you can make two complete turns when cranking. But on every turn after the first two, you'll have to flip the latch knob to let the pulley rotate past the stop pin.



Continue rotating the pulley clockwise until you've completed six full turns—this'll wind your spring up just the way you want it. (If you've got a brand new spring, five complete turns'll do the trick).

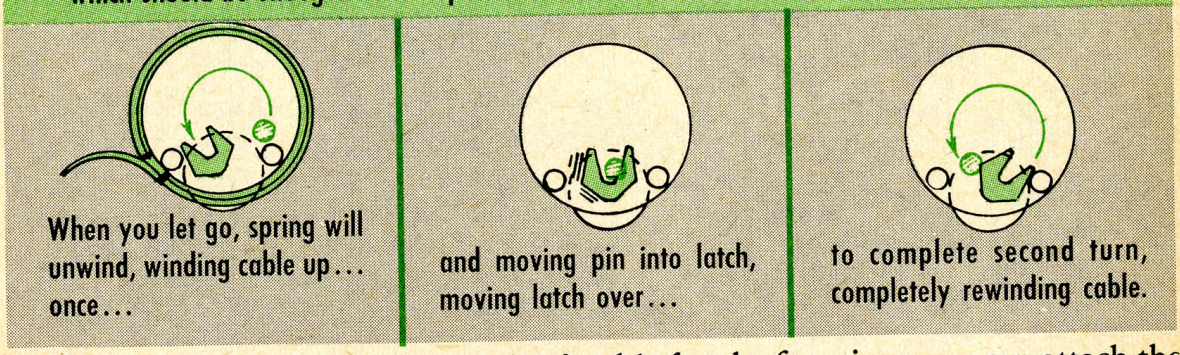
When you've completed the last turn, ending in the tightly wound position, hold the pulley (or ask a buddy to hold it) firmly to keep from unwinding while you attach the cable.



Feed the cable around the pulley counterclockwise till the end reaches the pulley slot. You may have to twist the cable end a little so the hole in the cable'll line up with the slot.

With your fingers or a pair of pliers, insert the roll pin through the slot, through the hole in the cable and tap it in lightly but snugly with a hammer.

Then, release the pulley, and the cable will automatically rewind counterclockwise two turns, which should be enough to take up most of the slack cable, and give you a good firm tension.



If you're inserting a new length of cable for the first time, you can attach the rubber handle at the pulling end, and snip it off leaving an inch or so between the handle and the handle stop.

But remember, even with a good cable and with the right spring tension, you can still tear up the innards of your starter if you treat it too rough. There's no need to yank and jerk on the pull rope.

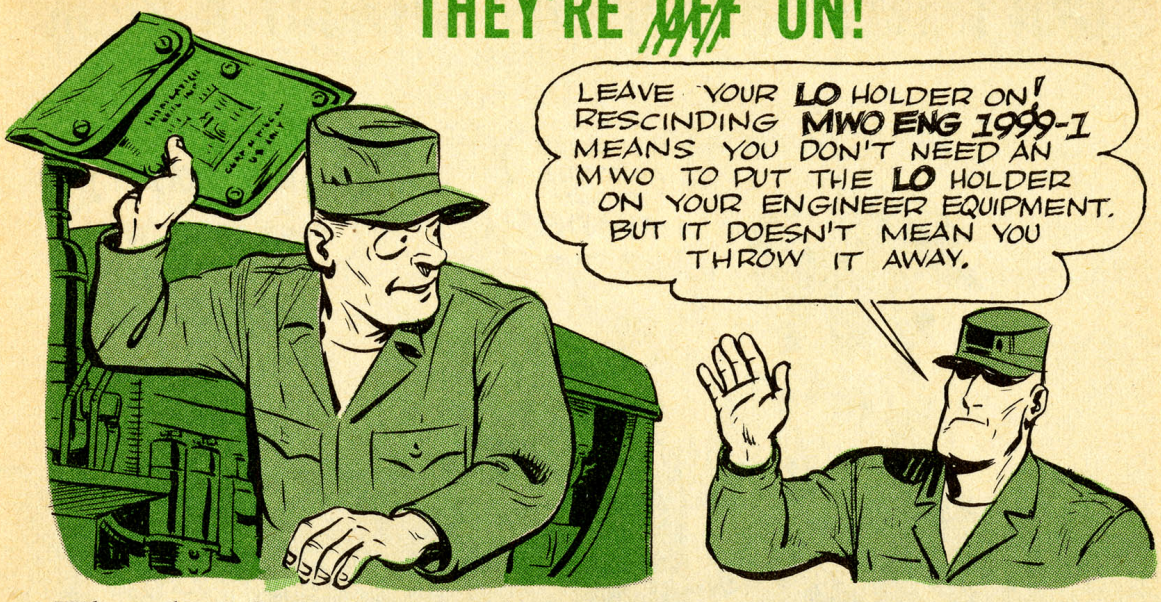
Ease it out until you can feel that the starter dogs are engaged and the engine is turning over. When you start your pull, all you feel is the light tension from the return spring. Then as the dogs take hold you feel more resistance as you start to turn the engine over.

Then give a short brisk pull to snap the the engine through compression, and hold on a second. If the engine does not catch, ease your starter rope back in—**don't let it snap back.**

Once more, ease out on the starter rope until you know you're turning the engine and give it your short brisk pull. The point is, if you jerk and snap on this starter rope like a puppy on a chain, you have a fine chance to bust an attaching pin.

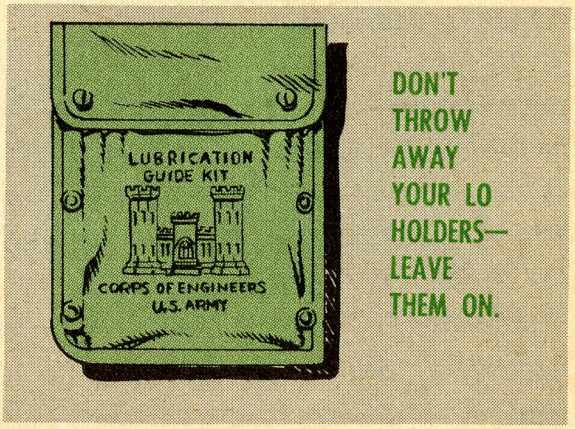
Of course, you'll also want to check your equipment's TM on starting Li'l Joe.

THEY'RE ~~OFF~~ ON!



Whoa, there. Don't go tossing those LO holders away! Leave 'em on your Engineer equipment—that's where they belong. Enough of these holders have hit the scrap heap already. Just in case you didn't know, they're still needed everywhere they were before MWO ENG 1999-1 was rescinded.

Here's the story. The installation of a lube order holder on Engineer equipment was set up by this modification work order—MWO ENG 1999-1. Then along came DA Circular 310-26 with the word that this MWO was out the window. Right away guys started ripping the holders off the rigs . . . then found they had no place to keep their LO's and other maintenance pubs.



Rescinding the MWO didn't mean that the holders weren't needed, it just meant you didn't need an MWO to put them on your equipment. The holders are now stocked as a General Engineer item of supply, instead of a modification. They'll come through with end items on initial issue.

You need one?

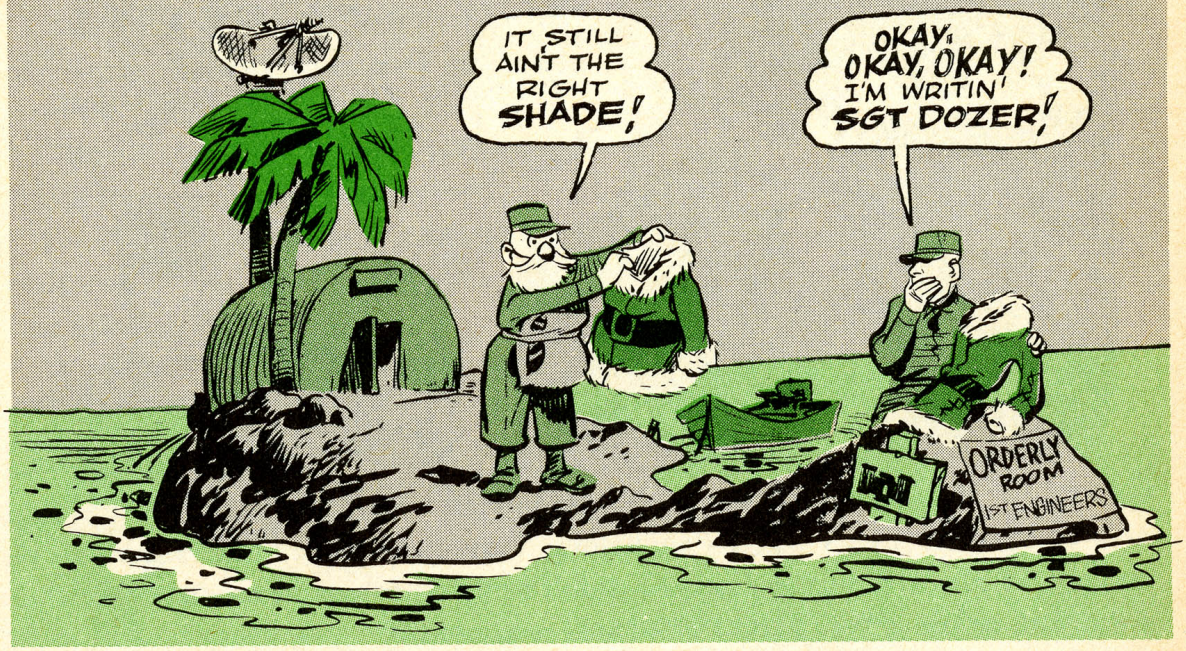
Here's what they go by—

FSN 7610-335-7130, Case, operation and maintenance publications, cotton duck, water repellant and mildew resistant, olive drab, 22-in long, 12¾-in wide, with 2 pockets.

The installation instructions are printed on the reverse side of the case.

You can take the 1999-1 from your MWO file or mark it "Rescinded by DA Circular 310-26"—or whatever your local SOP says you do. At any rate, you don't have to make any entries on your DA Form 478.

CAN'T TELL THE COLORS WITHOUT A BOOK



Dear Sgt Dozer,

It's plenty tough out here in the boondocks to know just what color of paint an outfit will receive when ordering Engineer enamels. The Engineer SM's give a complete list of the pigments in a paint, but list only the basic color of the paint. The exact shade of the paint is determined by a code number assigned to it. There are 16 different code numbers assigned to green in SM 5-1-8000 (11 Feb 1957).

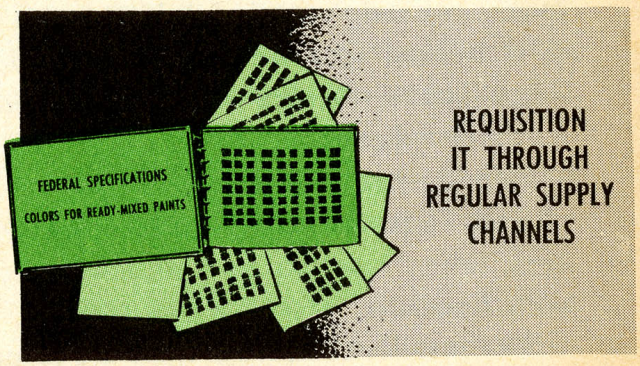
We would like to know if there are color charts cross referenced to code numbers available to maintenance organizations, and how they may be procured.

Can you give us the scoop on this?

Sgt J. B.

Dear Sgt J. B.,

You're so right . . . the colors the Army stocks would put a rainbow to shame. Unless you know the code number given to the shade you want, you're likely to end up with a stripe or a polka-dot. Like you say, there are about 16 different shades of green listed. As a f'rinstance, one of these greens—Code No. 2430—is actually OD.



But, there's a way out of your problem. You can requisition, through your regular supply channels, a book called "Federal Standard Number 595," (1 Mar 1956). It supersedes "Federal Specifications—Colors for Ready-Mixed Paints"

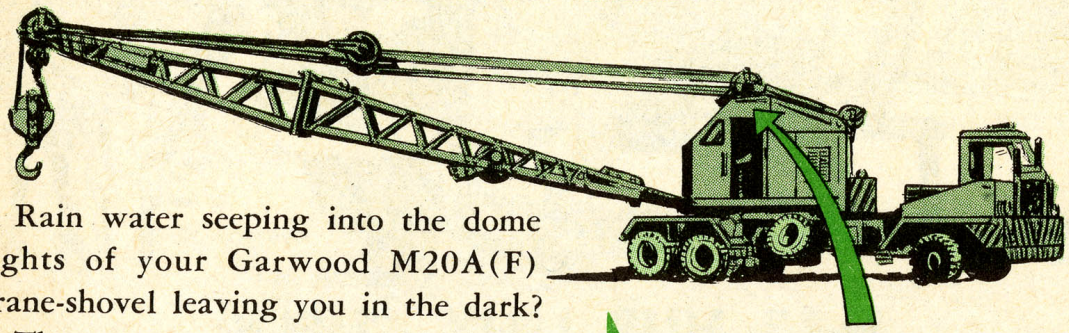
(TT-C-595, dated 12 Jan 1950). There's no FSN that applies—just ask for "Federal Standard Number 595."

While we're chinning about paint, I figure it's a good time to remind you to use paint or enamel the way it's supposed to be used. This means you don't add or mix anything in with your paint unless you've got directives or pubs that give you the go-ahead.

Adding something. . . like varnish . . . just to make your vehicle shine, won't make you the happiest guy in the payline. In a combat situation the shiny surface is a dead give-away . . . you might not even make the payline.

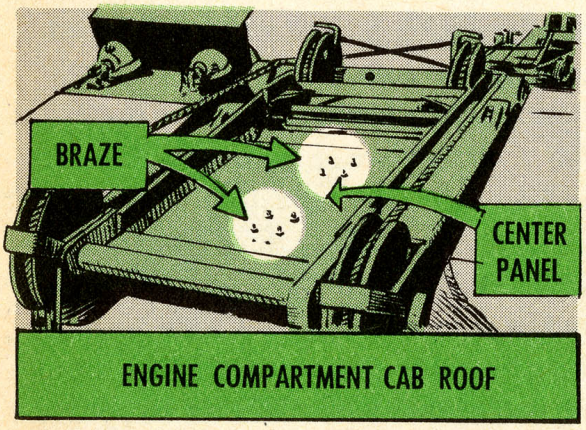
Sgt Dozer

GOTTA LEAK?



Rain water seeping into the dome lights of your Garwood M20A(F) crane-shovel leaving you in the dark?

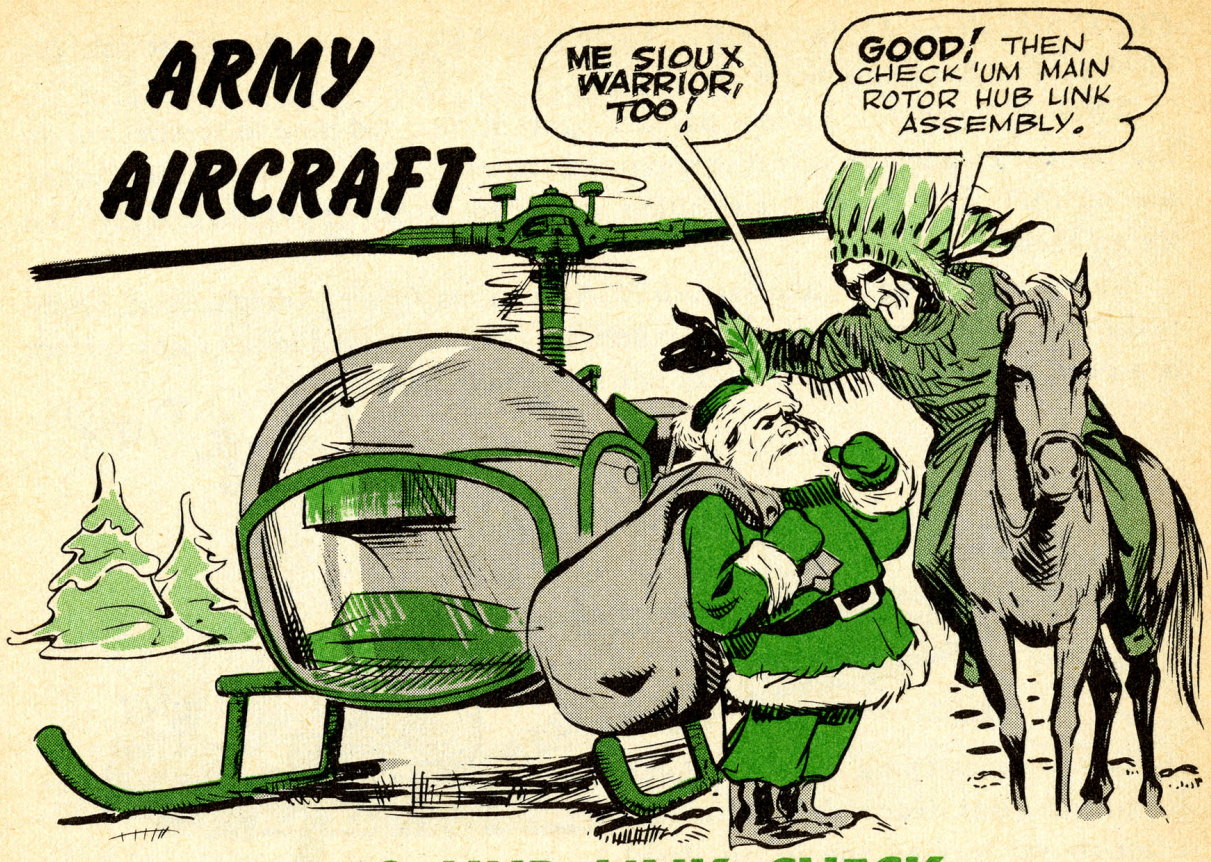
The cranes come with masking tape covering the nuts holding the lights to the center panel of the cab roof in the engine compartment. In most cases the tape won't stick around very long—this lets the rain seep into the light assemblies. The result—the bulbs rust in the sockets and foul things up.



There's an easy way to get around that. All you do is braze the nuts to the top of the center panel of the crane cab —and you're in business. No more water . . . no more rust . . . no more replacing the assemblies.

With the nuts brazed in place on the top of the cab, you've not only put an end to water worries, but one guy can maintain and make any repairs necessary to the light assemblies. The way it is now, it takes two guys . . . one on top to hold the nuts . . . and the other to tighten the bolts on the inside.

You want to be careful—when you braze each nut, don't braze the bolt into the nut.

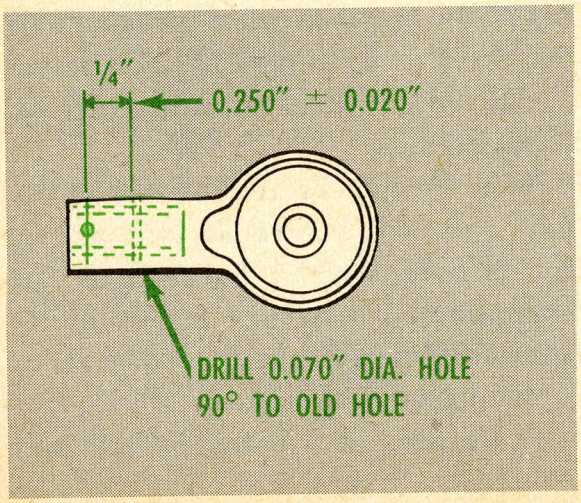


H-13 HUB LINK CHECK

Ho, Ye Chieftains, Sachems and Braves of the Sioux Nation—urgent smoke signals from the lodges at the meeting of the waters tell of an illness in the big gas birds.

Or in other words, pilots and mechanics on the Sioux (H-13) whirly-birds are reminded that TM 1-1H-13-536 (11 July 1957), was for URGENT ACTION.

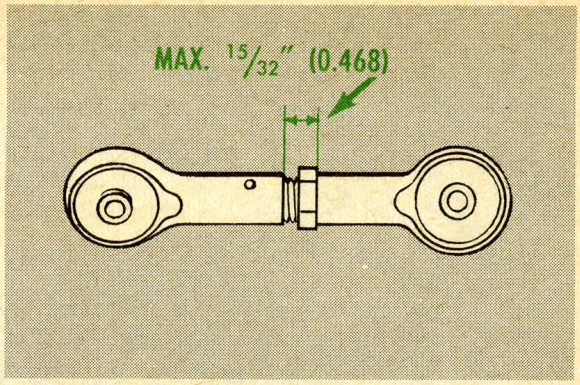
Here's the problem. It's possible that some of the main rotor hub link assemblies don't have enough threads holding the adjustable rod end when they're adjusted. And you sure don't want one stripping out on you.



So you first modify, and then inspect, and then replace if necessary. You're dealing with the four link assemblies on the main rotor hub, Part No. 47-120-025-1, FSN 1560-109-3750. You are looking to see if there is a hole through the adjustable end a quarter inch from the end of the shank. If there is, you've got to check the hub rigging to be sure it's right.

Then you've got to meet two conditions.

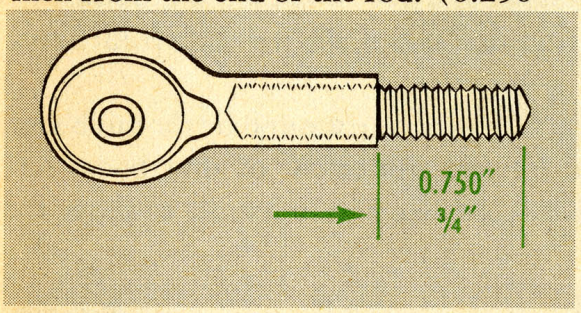
First, there must not be over $^{15}/_{32}$, or 0.468 inch between the shank ends of the rod ends.



Second, a test wire passed through the safety inspection hole must **not** clear the end of the threaded rod. In other words you want to be sure that at **least** a full quarter inch of threads are engaged.

Says which? Your links don't have a hole drilled through 'em a quarter inch from the end? Some don't. So you drill one.

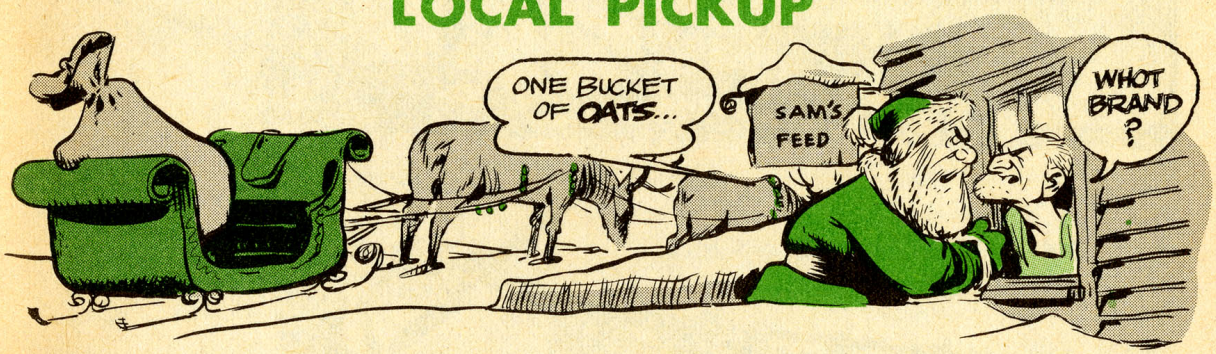
You use a No. 50 drill (seventy thousandths)—a $^{1}/_{16}$ at sixty-two and a half thousandths could be substituted. You drill this hole at right angles to the safety inspection hole that is already in your rod end. It wants to be right at a quarter inch from the end of the rod. (0.250 ± 0.020 inch). Carefully clean any chips out of the threaded hole and put the link back together.



By the way, when you have the link apart, check the length of the threaded shank. It should be at least $^{3}/_{4}$, or 0.750 inch from the shank of the fixed end to the end of the threads.

OK, so now you have an inspection hole where you need it. Return the link to the rotor hub and adjust it correctly. Then check again, not over $^{15}/_{32}$ between the shanks of the rod ends, and the test wire (0.030 safety wire) must **not**, repeat not, clear the end of the threaded portion when shoved into your new test hole. Otherwise you replace the link.

LOCAL PICKUP



Up in the air over parts procurement for some of your aircraft radio equipment? Could be, 'cause lots of that gear is strictly commercial communications equipment—with non-standard, non-stocked components.

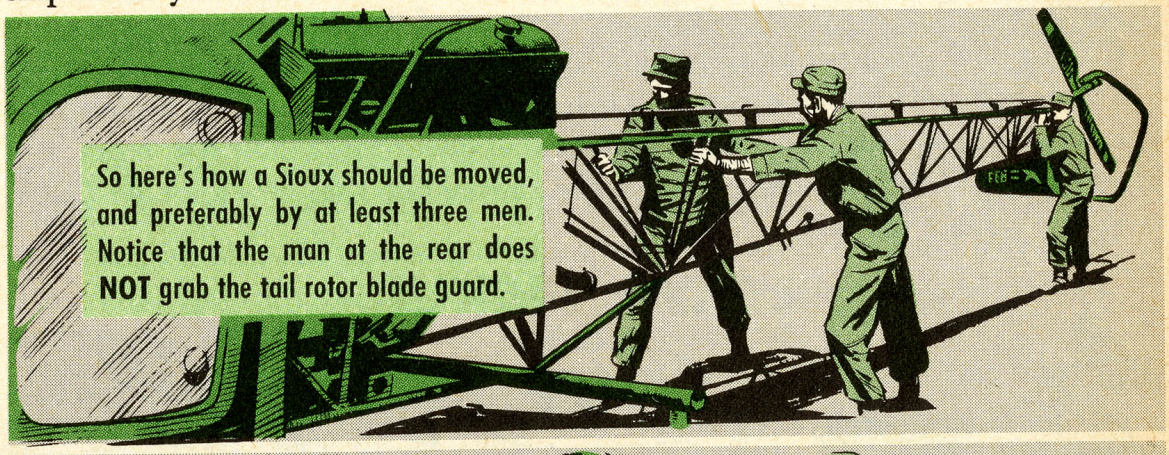
AR 715-630 (18 June 56) gives the word to take off for local procurement on all such items.

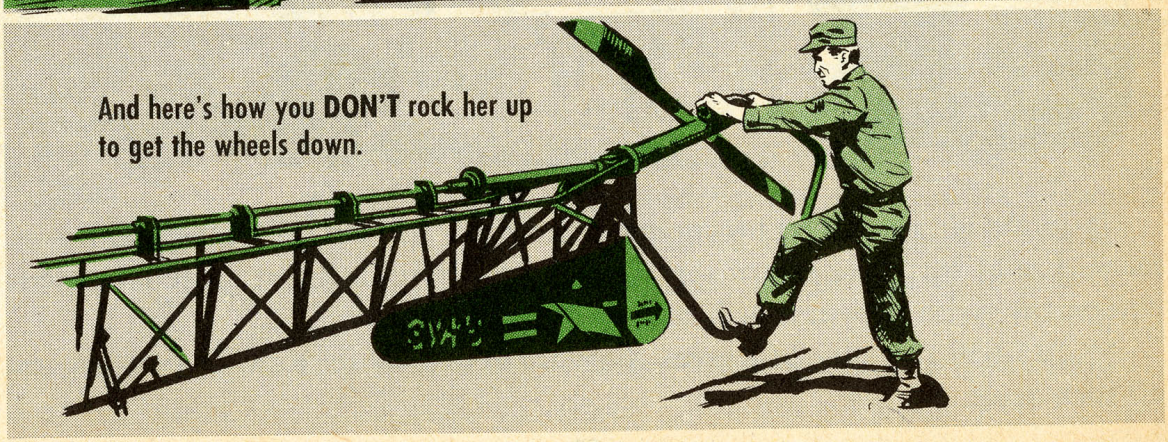
HAM-HANDED HANDLING

It's silly, of course, but there's still a lot of harm coming to Army Aircraft, particularly Sioux (H-13) helicopters, from rough handling on the ground.

Y'd think that when a ship was landed and shut down, she'd be safe from harm, but it doesn't always work that way.

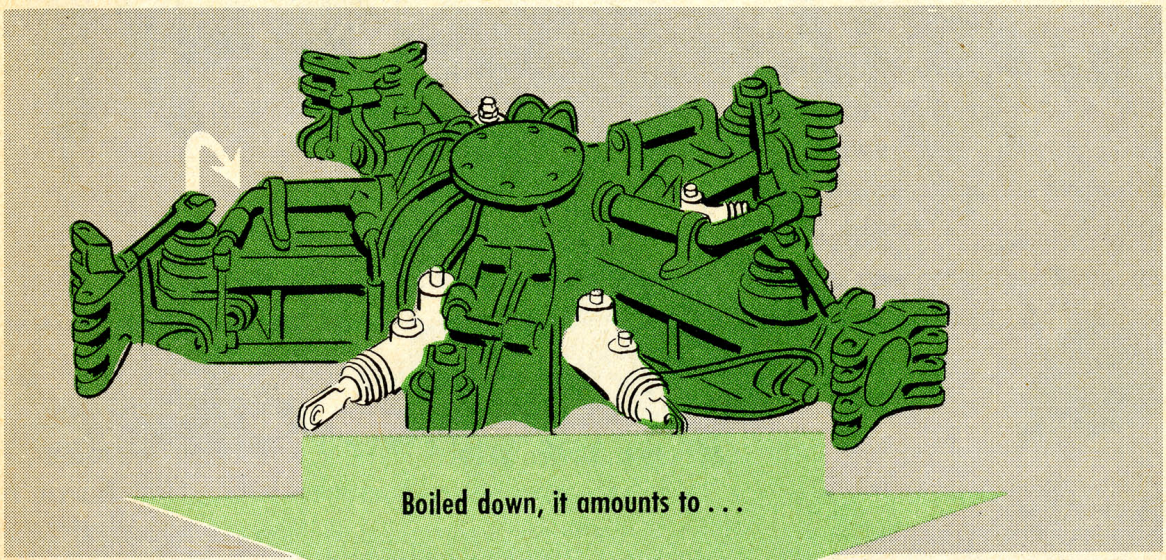
Seems as though the greatest temptation is to yank 'em around by the tail boom. It is a real handy lever, no denying that, but the alinement of that boom and the shaft, bearings, etc., is too critical to be used like a mop handle to shove the ship where you want her.



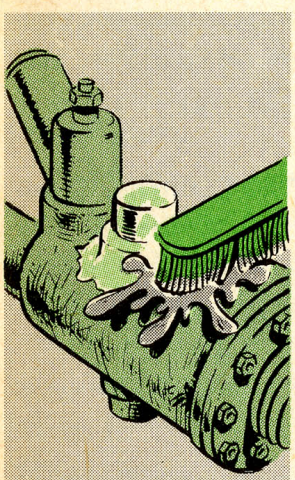


DONE YOUR DAMPERS?

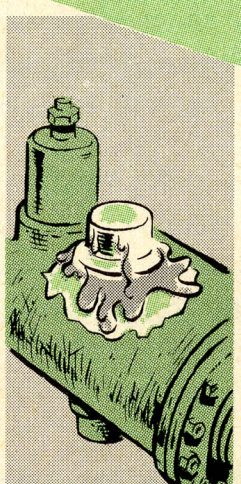
Just a reminder to you Mojave maintainers: TM 1-1H-37A-1006 (31 Jan 58) laid out the procedure for checking your main rotor damper-cylinder hubs for cracks and leaks.



Boiled down, it amounts to . . .

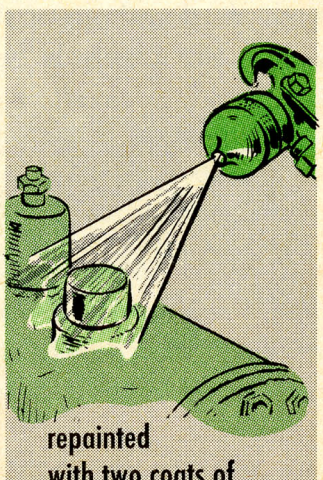


Cleaning the paint off the cylinder next to the hub, and . . .



using a penetrant to test for cracks.

Good cylinders are washed and . . .



repainted with two coats of aluminum lacquer, defective ones are replaced, and a UER is sent forward.

Now, just in case you haven't yet got your copy of this TM 1-1H-37A-1006, make a note in your TM 1-1H-37A-6, Section IV, System 3, page 17, that this inspection is coming up, and must be done within 90 days, or in the first or second periodic (50-hr) inspection after you get the order, whichever comes first.

Bein's this is a "Safety of Flight" inspection, you'll be real careful to get it done right.

CONTRIBUTIONS

UP IN THE AIR

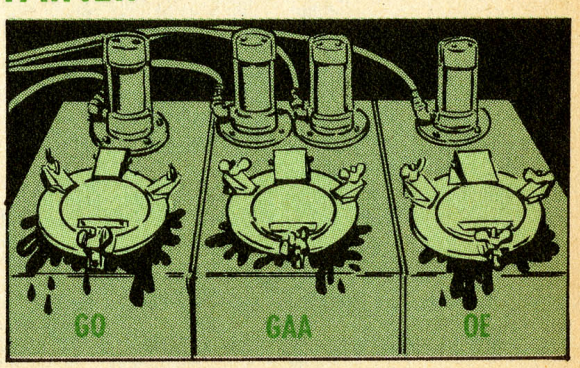
Dear Editor,

We figure we found a way to stow our protective clothing so's to keep it handy, well aired and out of the way. Just rig a line and a couple of pulleys near the ceiling of the assembly building. String your gloves and helmets on one line, and hang your coveralls and boots on the other. They'll be out of the way—but ready when you need 'em.

The Launcher Crew
Tolchester Btry
54 th AAA Bn

(Ed Note: Thanks for the info. Could come in handy, 'specially for outfits that are hurting for stowage space.)

LUBE RETAINER

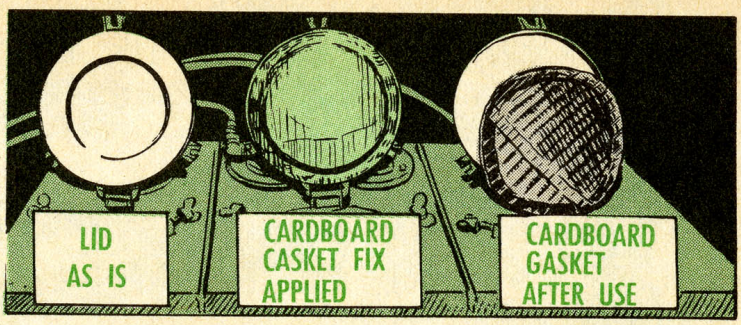


Dear Editor,

From left to right, they're for GO, GAA and OE—meaning those lube receptacles in the front of your Model M104E1 lubrication trailer. Trouble comes when those cans are full and the trailer's being pulled—things can get awfully sloppy.

The lube slops around, and no matter how tight you tighten the lids, some of it squishes its way around the edges of the lids and onto the trailer body because there's no sealing gasket.

To keep that lube where it belongs—in its can—just get a cardboard box and cut out discs to the inside diameter of the lids. Then, before closing the lids, place the discs between the inside of the lids and the holes. The discs act like a gasket and keep the lube down in its receptacles.



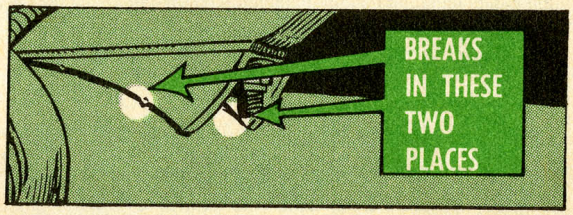
CWO Bob La Cour
New Jersey National Guard

(Ed Note—You're right on the beam with your idea, but you can get yourself something better than cardboard to use as discs. If your lube trailer doesn't have gaskets on those lids—and they're now coming off the production line with gaskets—get yourself some Packing, Sheet, 1/16x12x24 inches, FSN 5330-224-4681 (Eng). You can cut your gaskets from this stuff—it'll stand up much better than cardboard. To stick the gasket material to the container lids, use rubber cement. FSN 8040-266-0830 (Ord) gets you a quart—FSN 8040-266-0831 (Ord) is good for a gallon.)

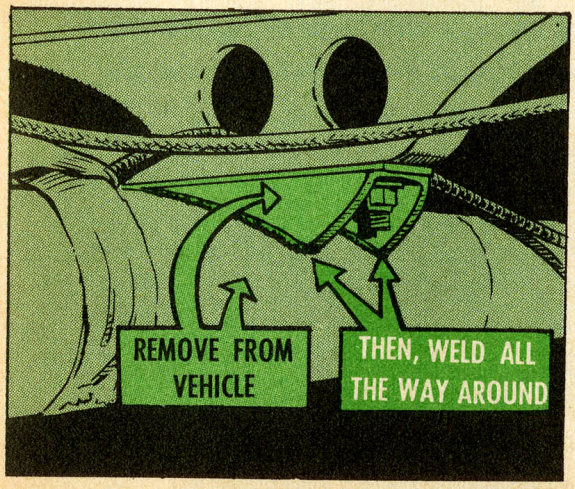
OUTWIT YOUR OUTRIGGERS

Dear Editor,

The outriggers, or support tubes, on our Mechanical Mule have a bad habit of cracking and breaking after a couple hundred miles of cross-country driving.



In eyeballing our vehicle, we noticed that the outriggers are only spot welded at points of contact with the body of the vehicle. This could be dangerous, to say the least.

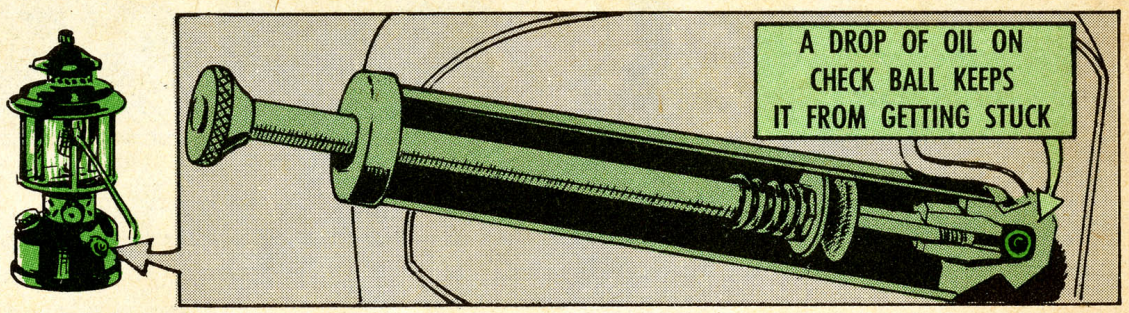


We fixed our Mule up, though, by welding those spots of stress all the way around, instead of just havin' 'em spot welded. Haven't had a bit of trouble since.

Earl Bernhart,
James Copeland and Ben Stotz
Aberdeen Proving Gd, Md

(Ed Note—Good idea if you've got one of the early production models. Later models have solid welds around the outriggers.)

OIL IT TO AIR IT

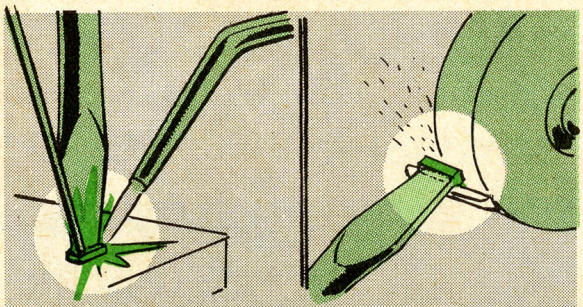


Dear Editor,

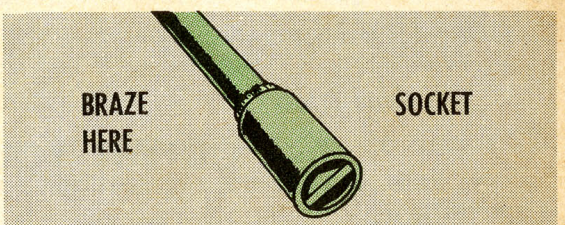
We've worked up a little attachment for a screwdriver that makes it easy to take out the check valves on gasoline lanterns.

The ball gets stuck and prevents air from being pumped in. All it needs is a drop or two of oil, but the valve has to be removed to do it. And it's hard to remove the valve without burring it up.

The tool we fixed is a 10-inch screwdriver . . . with a fatter blade and a socket brazed around the blade.



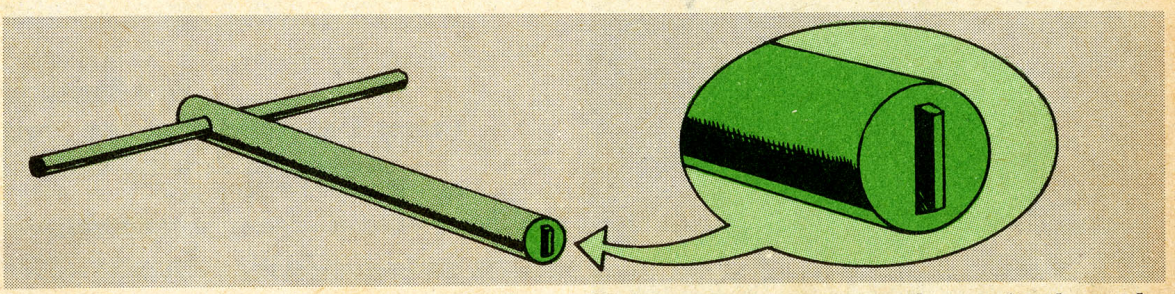
We brazed a strip of scrap metal onto the end of the blade and then filed it down to make a snug fit in the slot of the valve.



Then we made a simple socket from scrap metal and brazed it around the end of the screwdriver. This helps you turn the valve with less effort, and keeps the screwdriver from slipping and burring the valve.

S. Alger
Fort Lee, Va.

(Ed Note—Look for a ready-made tool that'll get those check valves out for you. It should be coming into the system soon and will be available when you need it. It's to be called an air-check-valve T-wrench and looks like this.



Meanwhile, tho, this is a good idea. It's important to get a drop of oil on that check ball—it'll go a long way in keeping those lanterns operating.)

Connie Rodd's BRIEFS

Two parts, one number

Your supply manual is right . . . it only lists one stock number for the blank firing attachment on your M1919A4, 1919A4E1, 1919A6 or 1917A1 .30-cal machine gun. Sure there're two parts—a cartridge stop and a muzzle attachment—but when one goes bad, you requisition both new parts under the one stock number.

It's no joke

The number may look funny but the MWO is no joke. MWO 9-2330-212-20/2, that is. This MWO (9 May 58) calls for installing ceramic baffles in your G-789 series FC vans to stop heat dispensing element failures. It's a second echelon job, so best get hep.

Rod saver

You been busting the handle on your M10 cleaning rod? Maybe your support unit hasn't applied MWO Ord B21-W5. The MWO puts a buffer on the rod to keep the handle from battering the muzzle. The protection the handle gets with the buffer is an added bonus.

Help!

You havin' trouble filling out a UER (DA Form 468), 'cause you're not sure you can tell just what the defect is? In that case, ask for help from your tech service support unit.

Small tool...small job

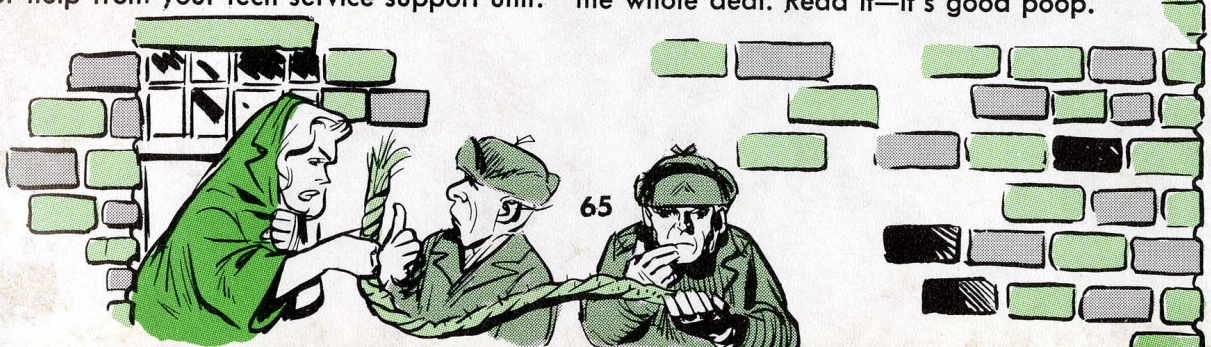
Hey! Lay off using big files and hacksaw blades to clean and dress the contact points of your vehicle's spark plugs. You can ruin the plugs for sure. The right tool to use is in your Second Echelon Tool Set No. 2 Common —it's Dresser, Contact Point: Abrasive, flex, non-conducting, FSN 5345-250-1345. Otherwise use fine sandpaper or borrow a flat little distributor-point file . . . and check TM 9-8638 (Dec 56) for more spark plug dope.

Outrigger opus

You M62'ers will want to grab hold of MWO 9-2320-211-20/1 (9 Apr 58) real fast like—it tells you how to put a safety retaining clip on your wrecker's outrigger tubes' locking pins. It's a simple job your organizational mechanic can whip out in a few minutes. But, those few minutes may save you the trouble of gathering your outriggers off the road after they've slipped out of their slots.

Tank gunners, take heed!

Extreme hot or cold weather can really trouble the boresight of your M48-series tank guns, as you probably know. This hotness and coldness can cause errors that'll knock your aim way out of whack. The only way to keep your gun squared in very hot or cold weather is to make frequent boresight checks. TB Ord 2300-10/2 (2 May 58) will clue you in on the whole deal. Read it—it's good poop.



Here's a hot tip, Sarge...
it's just off the press...yeah, yeah...
a brand new TM 9-2810. What does it do?...
Why man, this thing answers all the...
who, what, where, how
of tactical vehicle maintenance!
TM 9-2810
TACTICAL MOTOR VEHICLE PREVENTIVE MAINTENANCE, SUPPLY, INSPECTION AND TRAINING PROCEDURES
DOUBLE CHECK TO SEE THAT YOUR UNIT GETS THIS NEW TM 9-2810 ON AUTOMATIC DISTRIBUTION